An Investigation of EFL Learners' Mental Processes in L2 Writing: The Case of Iranian EFL Learners

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Abstract—Normal human communication manifests itself mostly either in written or spoken form. Examination of speech and writing processes enables psycholinguists to peek into the way people plan their language production. This article aimed to examine how EFL learners plan their writing activities. To this end, two groups of High proficiency (HPG) and Low proficiency (LPG) of 16 EFL students were asked to write an argumentative essay on the given topic. Based on the data obtained from their think-aloud protocols, retrospective interviews, and the comparisons of the two groups' performance, it was found that both groups approached the writing task in a linear progression of three stages of Formulation, Execution, and Monitoring. However, there were differences in the ways the two groups planned their writing productions.

Index Terms-L2 writing, writing mental processes, writing models, Iran

I. INTRODUCTION AND BACKGROUND

Communication may be considered as the ultimate goal of language planning and production. The most conspicuous aspects of our language production manifest themselves in writing or speech. The visual and concrete nature of production stage of our language makes it prone to more psycholinguistic investigations. As Kellogg (1996) believes, the very natures of oral and written productions have much in common. So it seems reasonable to have speech production models in mind while investigating writing production processes. Psycholinguists have always tried to understand how people produce their language. These efforts have resulted in two outstanding psycholinguistics theories proposed by Levelt (1989) and McNeill (1987) on speech production. The production, as a concrete stage in language use, can be examined from two independent perspectives. The first view is Levelt's (1989) influential model of speaking process which considers the production of speech as a linear process starting from the conceptualizer, which is responsible for message generation and monitoring, and then processing the preverbal message into the formulator component, whose functions are grammatical and phonological encodings; that is, they are responsible to add appropriate words and sounds to the messages produced by the conceptualizer (p. 9). The result of these operations is phonetic planning that is further processed by the articulator which produces the overt speech.

Focusing on what Levelt terms a 'blueprint' of the speaking process, Scovel (2003) provides a more profound analysis of the idea, admitting that speech production is a linear progression of four successive stages: 1) conceptualization, 2) formulation, 3) articulation, and 4) self-monitoring. Each of these is briefly elaborated below.

Conceptualization refers to the way linguistic concepts are formed in the mind. Scovel (2003) discusses two different views on this initial stage of language production. One way is to consider McNeill's (1987) theory, according to which linguistic concepts are the product of the simultaneous and parallel processes of syntactic and imagistic thinking. The former develops the sequence of words and the latter adds a holistic and visual dimension to our speech. Another way is Levelt's (1989) own idea on conceptualization that speech starts from concepts [concepts which already exist in our Long-Term memory as part of our schematic knowledge]. The next step is Formulation. It is defined as "the second stage of speech production, after conceptualization, when the message is formed into words, phrases, and clauses by the speaker" (Scovel, 2003, p.126). The third stage of our speech production is articulation, whereby words and phrases produced are turned into concrete and physical categories of our speech. Self-monitoring is the last stage of speech mechanism whereby speakers self-edit themselves when they happen to make a mistake. Embarking on the second

perspective, Scovel (2003) suggests "alternative approaches ... characterizing the production of speech as a holistic activity where several simultaneous and parallel activities are taking place to create the utterances we intend to produce" (p. 27).

Maybe the first attempt to developing a writing model is the work of Flower and Hayes' (1981) "explicit" model of the writing process. The model includes three major stages of a) planning, b) translating, and c) reviewing. The *Planning* stage consists of three strategies of generating ideas, organizing, and setting goals based on relevant information from the task environment and long-term memory; the *Translating* stage, which is the actual stage of composing, is when a writer actually puts his/her ideas into visible language, an activity through which writers transform their ideas from a linear or hierarchical plan in sentences; and, the *Reviewing* stage is the act of evaluating what has been planned or written through reading and editing strategies. This model which is based on the writing processes of competent L1 writers has been the basis of many psycholinguistic studies on both L1 and L2 writing processes (e.g., Hyland, 2003; Shaw & Weir, 2007; Plakans, 2008; Chien, 2012). The implicit assumption underlying these studies is that L1 and L2 writers go through the same processes are almost similar in L1 and L2.

Another model of writing, employed in the current study, is Kellogg's (1996) model. This model has proposed three stages of writing which are: a) Formulation, b) Execution, and c) Monitoring.

Here, Formulation proceeds in two steps: Planning and Translation. Planning refers to setting goals and pondering upon ideas and making a coherent structure out of them. Translating is giving the abstract ideas of linguistic forms. Similarly, the Execution stage takes place in two steps: Programming and Execution, which together turn the phonological code to motor instructions so that the relevant muscles can execute the received instructions. Monitoring is the same stage as the one occurring in speech production, i.e. self-monitoring.

Needless to say, this model elaborates the actual stage of writing in more details in the sub-stage of Translation and the stage of Execution, while in Flower and Hayes's (1981) model the main emphasis is on the planning phase the main phase of writing 'Translating' has received little attention. In addition, as Zimmerman (2000) believes, the model is generally deductive and hypothetical in nature and has a comparatively small empirical basis. Bearing all in mind, the researchers in this study decided to use Kellogg's (1996) model as the basis for this study.

The results of studies on comparing the ways skilled and unskilled writers tackle a task of writing (e.g. Zamel, 1983; Jones & Tetroe, 1987; Cumming, 1989; Armengol-Castells, 2001; Kongpun, 1992; Roca de Larios, Manchon, et al., 2008; Chien, 2012), in all, show that skilled writers do the planning and revision mostly at the discourse level; while unskilled writers plan less and much of their revision is at word and phrase levels.

Furthermore, it seems that the models referred to above, i.e. Levelt's (1989) speaking model and Kellogg's (1996) writing model, describe writing and speaking processes in general regardless of who is processing them: native speakers or non-native speakers. Besides, there appears to be scarcity of research on the stages involved in speech or writing production in EFL contexts. Taking these points into account, the present study tries to answer the following question:

-- How do EFL learners plan and manage their writing production?

II. METHOD

Design

This study adopts a basic interpretive, qualitative–oriented approach to investigate the focus of inquiry. Being the most common types of qualitative studies needed, these basic studies provide thick descriptions of the processes involved in the phenomenon under investigation. Therefore, the researchers considered it as an appropriate window to investigate how EFL learners plan their written production.

Data collection

The data for the study came from two different data-gathering sources: concurrent Think-Aloud Protocols and Retrospective Interview. The process of think-aloud protocol was carried out based on Bowles's (2010) guidelines in which the participants were first informed of the purpose of the study and agreed to take part in the experiment of their own volition. In the think aloud sessions, they were again informed about the general aim and procedure of the study and the researchers obtained their permission to audio tape their verbal reports. Then, they were provided with a detailed instruction about how to do the think aloud tasks during 30 to 45 minutes using either Farsi or English for their Think-aloud activities, of their own preference. Finally, they were given a warm-up activity (an arithmetic problem to verbalize while doing the computation) to be sure that they were well prepared to carry out the main task. Some degree of control was exercised to minimize any bias which could potentially contaminate the results of the study. First, the think aloud activities as a new and threatening experience. If the participants were given the same wright consider think aloud activities as a new and threatening experience. If the participants were given the same writing task to perform. The task was an argumentative task: "University authorities should ask students to evaluate their professors. Do you agree or disagree? Use specific reasons and examples to support your own position".

The reason for choosing this task came from four dimensions. First, it would reduce any kind of difference on the part of the participants in their performance due to the task type. Furthermore, since all the participants were requested

to write on the same topic, any differences in their writings which could be attributed to the topic effect was monitored. In other words, the topic, in our study, was a controlled variable.

Moreover, since the aim of the study was to investigate the production stages of EFL learners, having the same task and topic provided us with comparable sets of data. In addition, argumentative tasks are mostly used in the literature of writing studies believing that they are thought-provoking and therefore they easily lend themselves to discussion. The other reason that the task type was held constant during this study was that it provided the opportunity for the researchers to control over time designated for the activity. In this study, on the average, 30 up to 45 minutes were dedicated to writing argumentative tasks. Other studies have also set similar periods for writing argumentative tasks (See, for example, Chien, 2012). Setting the time restriction, however, may bring anxiety because students may feel they are under time pressure for the activity. To overcome any such negative feelings, all individuals were told that if they needed, they would have more time.

Further control was obtained by the way the participants started the activity. Since it was believed that any prior extra time would influence the planning stage of their production, once the necessary explanation about the Thick-aloud procedure was provided to the participants, they were immediately asked to start the writing activity.

Immediately after the learners had accomplished their writing tasks, they were invited to retrospective semistructured interview sessions to answer the questions: "how did you plan your writing task?, Did you plan it holistically or did you plan it in a linear fashion ?", since, as mentioned above, these are the two known models of planning writing process.

To be sure that our question is well understood, we explained fully to the participants what we meant by linear and holistic planning.

Participants

At the onset of study, Sixty-five (65) participants in two intact classes at Arak University, Arak, Iran, took the Oxford Placement test (OPT). Based on their scores on the OPT, 16 students were selected and asked to participate in the study. They were put into 2 groups of high proficiency and low proficiency, each consisting 8 participants. The HPG were those whose scores were 48 - 55 and the LPG were those who scored 28 - 36 according to the instruction manual of the OPT.

In order to ensure that the participants of the two groups were different according to their language proficiency, an independent T-test was run which showed significant difference between the two groups (t (6) = 4.423, p <0.01). The results of the independent T-test are presented in Table I. It is worth mentioning that the participants were not told that there were two separate groups, otherwise this could have affected their performance, and hence contaminates the results of the study. The purpose behind this decision was to control needed for any subject effects that might affect the performance of the participants. Some subjects might simply change their performance just because they might know that they had been selected as the members of the HPG and try to outperform the other group accordingly. This phenomenon is referred to as Hawthorne effect (Ary, Jacobs, Sorenson, and Razavieh (2010). On the contrary, if the participants had been informed that they were selected as the members of the LPG, this could make them try their best due to the fact that they felt they had been discriminated against. This tendency is referred to as John Henry effect or Compensatory Rivalry (Ary et al, 2010). The purpose of the control for these effects is to increase the internal validity of all types of research and consequently we controlled for these effects in our study as well.

THE 1-IEST RESULTS FOR THE OPT SCORES OF THE GROUPS										
		Levene's Te Equality of T	t-test for Equality of Means							
						Sig. (2-	Mean	Std. Error	95% Confidence Interval of the Difference	
		F	Sig.	t			Difference	Difference	Lower	Upper
OPT scores	Equalvariances assumed	5.340	.024	4.423	6	.000	1.46667	.33160	.80289	2.13045
	Equal variances not assumed			4.423	5.701	.000	1.46667	.33160	.80175	2.13158

TABLE I. THE T-TEST RESULTS FOR THE OPT SCORES OF THE GROUPS

III. DATA ANALYSIS

The think-aloud concurrent procedure and taped interviews constituted the instruments for data collection in this study. The data obtained during interviews supplemented the data collected through Think-aloud concurrent procedure. It is a general belief that these instruments would capture the kind of information which was not so much easily revealed during the transcription of the think-aloud audiotapes or was not emerged at all due to the inherent difficulty of Think-aloud processes.

For example, in the following extract, one of the learners in HPG wrote: "The opposing viewpoint is that the professors may lose their confidence but if this process is organized well and everybody could speak their minds in a polite and academic way." which is an incomplete sentence. What follows is the transcription of his think aloud

protocol analysis for the abovementioned writing extract (while this participant vocalizes his thinking in English during his writing):

/Um and (2")/ if we go to the opposite viewpoint of this process (8")/ Ok/ so/ opposite viewpoint (2")/ I'm going to think about that before I write/ um (2")/ I think um may be this will affect the/ the way professor thinks about himself/ THE OPPOSING VIEWPOINT IS THAT/ um/ THE PROFESSORS (3")/ may um (2")/ may be (1")/ may/ MIGHT LOSE THEIR SELF CONFIDENCE/ because of bad feedbacks and not all students are/ um you know (2")/ honest in these kind of things (2")/ and they just/ want to say something to /disrespect the professor/ may be because of (1") personal problems (7")/ and so/ thinking about viewpoint of professors/ because I want to clear it out and think about other things because it's/ it's/ a kind of/ of (2")/ dominating other things in my mind/ I cannot let it go/ I just want to/ come to a conclusion with it and then/ write about other things/ um (9")/ so I think/ if this/ process/ lose their self confidence/ BUT IF THIS PROCESS/ um(4")/ ORGANIZED WELL AND EVERYBODY CAN SPEAK THEIR MINDS/ um(3")/ IN A POLITE AND/ academical/ ACADEMIC WAY/ ok/ I'm done with that.¹

The above transcription of the think-aloud session reveals the difficulty inherent in the think-aloud process and the fact that little can be understood from it; therefore, we need to use the retrospective interview as a complementary process in our data analysis.

In the retrospective interview session, we asked this participant about his sentence, which was obviously erroneous. After seeing his utterance and listening to his think aloud performance, he said it was just a mistake (in spite of the fact that there he said "Ok, I'm done with it") because of the technique (i.e. Think-Aloud Protocol), the fact that he had to write while thinking aloud and also had many ideas in his mind to write in that moment. It seemed impossible to capture these inherent complications based on just think aloud data. The data obtained from the individual interviews helped to understand the boundaries of the categories involving interpretive judgment.

Constant comparative method was used to analyze the data in the protocols. This strategy, according to Ary et al. (2010), involves inductive coding of categories emerged from the data analysis along with simultaneous comparison of all units of meaning obtained during the analysis.

The procedure involved examining each new concept (unit of meaning) emerging through data analysis, comparing it with previous categories to determine whether it establishes a new category or not. If the new concept was determined as a new one, it was coded as a new category. If, on the other hand, it was considered as similar to other pervious categories, it was merged into the already exiting categories. After the completion of data transcription, the researchers met to examine the results to reach unanimity on all the categories which were emerged out of each stage of the writing.

All the interviews were audio-taped, transcribed and analyzed. Data obtained from the audio-taped participants' interviews were similarly analyzed on the basis of the focus of the research; that is, the stages of the writing production: a) Formulation, b) Execution, and c) Monitoring.

To find and settle the discrepancies, the two sets of data were matched to indicate the extent to which the data conform to each other in terms of the processes and stages involved in the production processes of the participants. The inter-rater agreement between the researchers after resolving the discrepancies turned out to be 85%.

IV. RESULTS

In the current study, the topic of the task was an issue that, in the time of carrying out the research, all the students were required to ponder upon and fill out the necessary forms. So, all of them were already familiar with the issue. All the students had enough and equal time to write an essay on the prompt (topic) of the study. Therefore, the differences between their planning could not be attributed to the time condition. Tables II and III summarize the numerical findings of the study for both groups. The participants in LPG have been specified as LP1 to LP8 and the participants in HPG as HP1 to HP8 in order to ensure confidentiality.

/: separates chunks of thinking or writing

¹ In transcribing the recordings of think aloud sessions the following signs were used:

Lower-case letters: show the think aloud sayings

Upper-case letters: show the actual writings

⁽x'): shows the pause-time in second

LPG GROUP DATA							
Participants	Total Words	Total time	Formulation time	Execution time	Monitoring time		
	Written						
LP 1	140	28	1	23/5	4/5		
LP 2	180	11	1	10	0		
LP 3	214	17	1	16	0		
LP 4	133	16	1	15	0		
LP 5	179	15	1	14	0		
LP 6	123	14	1	13	0		
LP 7	140	16	1	15	0		
LP 8	152	17	1	16	0		
Total	1261	134	1	122/5			
	The mean of the Total Words Written =158 word						
	The mean of the Total time spent for task completion =17 min						
	The mean of the Total time spent for Execution $=15/5$ min						

TABLE II.	
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TABLE III.	
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		-	GROUP DATA		
Participants	Total Words	Total time	Formulation time	Execution time	Monitoring time
	Written				
HP 1	198	6	1	5	0
HP 2	214	25	1	24	0
HP 3	227	19	1	18	0
HP 4	110	19	1	18	0
HP 5	277	22	1	21	0
HP 6	128	9	2	7	0
HP 7	256	12/5	1	11/5	0
HP 8	159	12	1	11	0
Total	1569	124/5		105/5	0
	The mean of the Total Words Written =196 words				
	The mean of the Total time spent for task completion $=15/5$ min The mean of the Total time spent for Execution $=13$ min				

The categories emerged from analyzing the data of the think-aloud protocols and interview sessions indicated that for both HPG and LPG the production planning of writing consists of three concrete stages of Formulation, Execution and Monitoring which were considered as the central themes of investigation of this study. Although both groups performed the activity in a sequential manner, that is, they started with ideas, then looking for the appropriate words and vocabulary and sometimes revising their writing, they did actually differ in how they went through these processes. The analysis of the data indicated that the writing production of the participants did follow the same routes as those in the literature. However, some differences between the two groups were revealed through the in-depth analyses which are discussed respectively for Formulation, Execution and Monitoring stages below.

a) Formulation stage:

Both groups did the Formulation stage similarly. The category determined from the analysis of the data for the mentioned stage was referred to as "initial reading of the topic" of the writing task. As indicated in Tables 3 and 4, all participants spent approximately the same time (one minute) reading the topic which was followed by a "silent period" as the boundary dividing the Formulation stage from the Execution stage. This could be due to the time constraint applied by the researchers at the onset of the study or the fact that all the participants had brainstormed on the topic due to the administrative procedures as a part of official requirements of their university before the study. Just one of the participants in HPG (HP6) did this stage in two minutes (twice as much as others). The only reason obtained through data analysis was that she started reading the topic more slowly and louder than the others. In the interview, she mentioned that she used this time as a reflection period to think more and concentrate more on the task as a personal strategy.

b) Execution stage:

The participants in both groups did not spend much time on analyzing the topic and went directly to the next stage, i.e., Execution. The category that was found similar across both groups was the "programming category". This category marked the onset of the Execution stage. As indicated by the above tables, the HPG wrote more words in terms of quantity in a lesser time than the LPG (The mean of the Total Words Written in the HPG equals 196 words written in 13 minutes contrasted with the mean of the LPG that is 158 words written in 15/5 minutes). Also, the two groups differed in the manner they performed this stage. The HPG tended to treat their writing in a more iterative and global manner, while the participants in the LPG tended to move in a step by step manner. This was distinguished for the LPG by first to start one idea, and then marked pauses (around 5 seconds) to search for local words and grammars, finishing one idea and moving to the next idea.

During this category, which constituted the major part of the production plan, the participants planned, reread, evaluated and revised their writing task in a recursive manner. Therefore, the next category which evolved out of the analysis was "organization category".

The participants of the groups tended to organize their writing differently. The "organization category" was determined through the analysis of some subcategories in turn. These were the categories of "pausing", "using L1 ", and "the manner of outlining ".

During the production, the members in the HPG used very shorter pauses (at most 3 seconds) while the typical range of pauses lasted between 3 up to 20 seconds for the LPG. One reason which could be mentioned for the longer pauses here, may be due to the difficulty of the think-aloud procedure. But the analyses of the interviews revealed that participants in the LPG paused to find the appropriate words, grammar, or even the next idea.

Also, all the participants used their L1 resources in different ways. For the LPG, most of the protocols were conducted in their L1 (Persian). On the other hand, for the other group, it was just the opposite. They used L2 (English) in their think-aloud protocols most of the time. For two of the members in the HPG, the whole process continued without any single word being uttered in the L1. It seems that there is a continuum with the lower proficient learners using more L1, going to higher proficient ones using more L2. Woodhall (2002) mentioned that the frequency of the L2 writers' use of their native language is a function of their language proficiency. However, the length of this language switch is proportional to the task difficulty.

The two groups also differed in how they outlined their task. For the HPG group, the activity was treated more globally. First, a general idea came to their mind and they developed it further in the written form. On the other hand, the learners in the LPG group tried to develop one idea little by little with numerous revisions that in some instances led to altering the whole idea. The differences between the groups in the way they outlined the task was further confirmed by the data collected during interviews.

c) Monitoring stage:

The HPG tended to treat the Monitoring stage more holistically, correcting their essays both at the local and discourse levels. At the local level, the participants seem to work for function and content words, while at the discourse level they take their whole utterance into account when they check for the pragmatics, syntax, and semantics of their utterances.

For the LPG group, the corrections took place mostly at word level and, in rare cases, at sentence level. They sometimes paused to look at what they had written so far and then continued with the activity.

One of the processes noticed was repetitions of some words in L1 by the members in the LPG. It might have been used as a metacognitive strategy to correct their immediate productions or compensation strategy to find more ideas by the learners during the think-aloud procedure. Comparing students' use of writing strategies during their written tasks, Chien's (2012) study showed that skilled writers planned more, made more efforts in generating texts, and did more revision and edition on their writings compared with unskilled writers.

Since the transcriptions of think-aloud sessions were prepared after the experiment was run, the researchers did not have further access to participants to obtain more evidence on this point. All the learners marked the end of their written production by the category of "verbal report". They used some verbal comments such as "I'm done" or "Nothing more" and "That's ok ".

One of the interesting results found was that no one in both groups tried to reread and revise the manuscript after they finished their writings. Of course, we cannot be sure about the reason(s) of this happening. One explanation might be the inherent difficulty of writing while thinking aloud that made the participants exhausted. So they wanted to finish the task sooner. Another justification might simply be that the participants did not feel their writing production need any further revision as our analyses showed that the participants of both groups planned their revisions and corrections during the Execution stage itself. Therefore, the first draft produced by our participants turned to be their final one.

V. INTERPRETATIONS AND IMPLICATIONS

With the aim to contribute to the field of writing, especially in EFL environments, the findings of the present study suggest that EFL production is a linear procedure consisting of three stages of Formulation, Execution and Monitoring for both proficiency levels under this study.

To summarize our findings, it should be said that in spite of the fact that the two groups were significantly different in terms of their proficiency levels, they all planned and managed their writing productions linearly. However, to be specific, regarding the Formulation stage, all of them performed almost the same. But, when it comes to the Execution stage HPG members tended to treat their writing in a more iterative and global manner while the participants in the LPG tended to move in a step by step manner. We can understand this from their pauses times (3 up to 20 seconds for the LPG and at most 3 seconds for the HPG) i.e. while HPG members had an idea and developed it in their writing, LPG members tried to develop an idea during their writing little by little with a lot of revisions. Finally, in the Monitoring stage, it was found that HPG members corrected their essays both at the local and discourse levels, while LPG members' corrections took place mostly at word levels and at most in rare cases at sentence levels.

Ellis and Yuan (2004) while asserting that there is no universally accepted theory of L2 writing, mention some available theories that believe in similar sets of processes in L2 writing, generally being accepted to be broadly similar in both L1 and L2 writing.

Although the findings directly confirm Kellogg's (1996) model of writing, Levelt's (1989) model of the speaking process is also implicitly confirmed. The reason is that both models are somehow the same except in that in Kellogg's

model the articulation stage is missing. Kellogg himself (1996) considers it safe to assume that oral and written productions share much in terms of their processes. Therefore, as also confirmed by Ellis and Yuan (2004), one may find Levelt's model of speech production and Kellog's model of writing similar in some ways. The reason seems straightforward. Articulation involves the production of individual phonemes in a language which through their combinations we produce our language in the oral mode. To be on the safe side, we think that both models are at work in our study and the results of our study seems to be corroborated by both models, since the participants appealed to both models during their think-aloud activities as well as their writing process. The present study's findings suggest that EFL learners' writing processing takes place in a linear fashion in three stages of Formulation, Execution and Monitoring as supported by these models.

The results of our study also seem to be in line with the results of De Larios, Marin, and Murphy (2001), which showed that formulation played a more important role than other stages involved in production of argumentative tasks.

Further research is needed to investigate the relationship between fluency, language proficiency, and outlining during the Execution stage by the EFL learners. Also, our research was limited from two other points. First, what is the effect of different task types on the writing production of EFL learners? Our study only involved argumentative tasks. Moreover, we controlled any prior planning in our study. What will happen if students have the opportunity to plan before they start their writing project? Yuan and Ellis (2004) mention that when EFL learners have enough time they tend to devote this extra time to both careful formulation of their message and monitoring the output of phases of formulation and articulation. In fact, both operations involve much more attention to form.

The findings of the study theoretically contribute to a better understanding of the nature of language processing in EFL contexts, especially in the area of writing skill. From a practical point of view, the results may be found useful for language teachers, curriculum planners and material developers. Informed by the way our language production is processed, teachers can focus on the specific areas in which their learners feel difficulty and work on that. For example, when writing, some learners may have some difficulty just on the formulation stage, they are not able to set their goals, think over ideas and assemble them meaningfully in their minds, while for others, these problems may appear on the execution stage. This means that they can plan and set their goals in a meaningful framework in their minds but they cannot proceed to the next stage which is the execution stage due to the lack of appropriate and sufficient knowledge of forms (words, structures, and their pronunciation) in the second language. Teachers may find that some of their students have problems in more than one stage and they may respond to the specific needs of the learners. By doing so, we think that more time is saved for teachers because on the one hand they do not need to work on all stages for a particular learner which is unnecessary. On the other hand, some learners may share some common problems in terms of the stage they face difficulties that eliminate a need for individual explanations. For instance, almost all the participants in our study had problem with the last stage, that is, monitoring.

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