

## **The Effect of Task Complexity and Recast on Iranian Intermediate Learners' Speaking Accuracy and Fluency**

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### **Abstract**

This study attempted to look into the effect of increasing task complexity and the provision of recast in separate experiments on the EFL learners' oral language production and their fluency and accuracy. For both experiments, oral narrative tasks were used (Heaton, 1975), adjusted in terms of complexity according to Robinson's Triadic Framework along the +/- reasoning and the +/- few elements dimensions. For the effect of recasts, learners were provided with recasts when performing their oral narrative tasks. The obtained data were subject to repeated measures ANOVA and one-way ANOVA to provide answers to the research questions. Increasing the complexity of the oral narrative tasks led to high accuracy but low fluency, supporting Robinson's (2011) prediction of the opposite resulting effects of raising task complexity on fluency in L2 production. The provision of recasts, on the other hand, influenced learners' accuracy and fluency in their oral productions positively by implicitly focusing their attention on the form of their communication. And, comparatively, recasts and task complexity did not differ in terms of their contribution to oral accuracy and fluency, approving their special benefits for each dimension of oral production in isolation. Results are discussed in light of Robinson's Cognition Hypothesis.

**Keywords:** task complexity; corrective feedback; recast; oral production; accuracy; fluency

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## 1. Introduction

Communication can be considered a key aspect in the acquisition of language in second/foreign language contexts. Ellis (1985) defines communication as the discourse which is mutually shaped by the addresser and the addressee and input stems from interaction. Therefore, the concept of communicative competence is based on the assumption that language learning is the outcome of an interaction between the learners' mental capacities and the linguistic context (de Jong, Steinel, Florijn, & Schoonen, 2012).

Appropriate use of English as a second or foreign language in oral communication need not be considered as the most common, but as very complicated activities people need to learn for their interpersonal communication (Jamshidnejad, 2010). Moreover, the increasing cross-cultural relations among individuals in society create a need for people to communicate in languages different from their mother tongue. As globalization and cross-cultural communication witness a rising pattern, individuals are required to master the capability of speaking in front of others in a second language (Occhipinti, 2009). Achieving proficiency in oral communication is the main objective and motivation which a large percentage of learners bring to language classes (Richards & Renandya, 2002). Thus, if they can communicate in foreign language effectively, they are considered successful. An act of speech involves more than knowledge of the language. It involves the selection of integrated patterns of elements of the language for the expression of intention, and the assembling of necessary features without undue hesitation (Rivers, 1981).

Tasks have played a substantial role in facilitation of L2 learning specifically L2 production either in written or oral mode regarding the promising transferability of task-based language learning to real world task performance. Works in this area have looked into the effect of task types, design and implementation factors deemed to influence L2 written production in an attempt to throw light into task-based language teaching (TBLT). However, research examining the effect of task type, task and implementation components and probable effect on L2 speaking fluency, accuracy and complexity are few. To fill these gaps, this study extends this line of research by examining the effect of cognitive task complexity and feedback in form of recast in foreign language (FL) oral production accuracy and fluency dimensions.

According to Hyland (2003, p. 112), "tasks are the heart of a teaching unit" in second or foreign language pedagogy. Hyland refers to the essentiality of exploring the role of task types and sequencing of tasks in advocating and enhancing students' language learning achievements. According to him, tasks receive a substantial role in language teaching (see Ellis, 2003; Nunan, 1989) and have a fundamental position in language learning curriculum development. Hyland has divided tasks into two groups of real-world and pedagogic tasks. Real-world tasks consist of the target activities that learners need to carry out to accomplish real communicative goals such as orally presenting an academic research in a conference. Pedagogic tasks, on the other hand, are developed with the intention of promoting linguistic capabilities, genre knowledge, and language production skills in an attempt to link the learners' existent proficiency with the target competencies.

With respect to the significance of tasks in both task-supported and task-based language teaching (TBLT; see Ellis, 2003) and L2/FL speaking instruction (de Jong, et al., 2012), multiple definitions for what a task is (e.g., Breen, 1989; Bygate, Skehan, & Swain, 2001; Ellis, 2003; Skehan, 1996) and guidelines for sequencing tasks have been suggested (e.g., Long, 2015; Robinson, 2010; Skehan, 2014). Breen (2009) made a distinction between task-as-work plan and task-as-process. He argued that pre-

developed task-as-work plan turns into task-as-process regarding the learners' understanding from the task and the task demands, and the outcomes that learners aim to arrive at. He noted that the outcome of a task is the conclusion of the interaction between the task, learners, and task context, and more crucially, of learners' individual understanding of this interaction. Ellis (2012), however, contends that Breen's differentiation between task-as-work plan and task-as-process is flawed since as, he argues, task design and implementation aspects can be used to impact task performance, even though Ellis also encourages investigations on the effect of learner variables on task enactment.

## 2. Literature Review

### 2.1. Recast Complexity

From among several dimensions of tasks, researchers have pinpointed to the potential impact of task complexity on students' learning and production when they are involved in a task-based interaction (Robinson, 2001; Skehan, 1998). Task complexity is characterized by Robinson as "the result of the attentional, memory, reasoning, and other information processing demands imposed by the structure of the task on the language learner" (2001, p. 29). This approach to tasks indicates that tasks may be in some ways cognitively complex for learners according to their design, and this influences the way according to which students analyze information in order to complete a task.

Robinson (2005, 2007, and 2011) operationalized his proposed Cognition Hypothesis in terms of The Triadic Componential Framework (2011) which itself consists of three features: task complexity, task condition, and task difficulty. Task complexity, according to Robinson, varies with respect to the *resource-directing* and *resource-dispersing* traits. The resource-directing trait necessitates different degrees of cognitive burden on the attentional capacities of the learners. The degree of burden differs based on the conceptual characteristics of the tasks such as a past or present reference, here and now, few or many elements, and small or large number of reasoning requirements. The resource-dispersing dimension, on the other hand, enforces procedural pressure on learners' cognitive resources and contains elements such as available planning time, schematic knowledge of the task, and the number of tasks to be enacted.

Robinson (2011) believes that adding to task complexity along the resource-directing features causes a simultaneous development of accuracy and complexity of language production, since learners need to resort to their multiple attentional resources so as to accomplish the multiple conceptual task criteria. However, fluency of learners' production would decline due to the fact that learners need to process language. On the contrary, intensifying task complexity according to the resource-dispersing dimension would lead to lessened fluency, accuracy, and complexity in learners' language production due to the procedural demands imposed on learners' working memory.

In his Trade-Off Hypothesis, Skehan (1998, 2001, 2003, and 2014) and Skehan and Foster (2001) claim that tasks with a higher degree of complexity are more likely to use up greater attentional resources, thus preserving less attention accessible for the learners' focus on form attempts. Increasing the cognitive demands of tasks (along with both resource directing and resource-dispersing dimensions), according to the Trade-Off Hypothesis, will negatively affect the accuracy and complexity of language production. In their view, enhanced task demands will increase the need to pay attention to meaning during task completion, and thus there will be less attentional resources available to allocate to form on the part of learners. Conversely decreasing the complexity of L2 tasks, according to Skehan (1998) will allow learners to allocate

increased amount of attention to form. This however will not automatically result in greater accuracy and complexity.

A large number of studies have investigated the role of task complexity dimensions in language learners' written productions regarding accuracy, fluency and complexity, with a fewer number of studies probing into oral production. The research by Yuan and Ellis (2003), for example, investigated the participants' oral narrative production in terms of accuracy, fluency and complexity in different planning conditions: no planning, pre-task planning, and on-line planning. In the no planning condition, learners were asked to perform the task immediately after seeing the pictures in 60 second and they had to accomplish the task in 5 minutes, leaving no time for planning. In the pre-task planning, participants were provided with 10 minutes to plan their oral narratives and had to produce their narratives in 5 minutes. Lastly, the on-line planning condition required participants to perform the tasks after seeing the pictures for 60 seconds; however, they were provided with unlimited time to formulate and monitor their narratives while carrying out the task. Findings of this study demonstrated that pre-task planning resulted in better grammatical complexity while on-line planning led to both higher complexity and accuracy. Fluency did not advantage from neither the presence nor the absence of task planning.

Kormos (2011) examined the effect of task complexity on discourse and linguistic features of narrative writing production of EFL students. Two narrative tasks were used each with a different level of complexity regarding more/less demand for plot conceptualization. In the simple task, the content was presented while in the complex task learners needed to develop the content themselves. The findings demonstrated that task complexity had no effect on linguistic performance, rejecting the predictions of the Cognition Hypothesis.

Kuiken and Vedder (2012) conducted three studies on task complexity with different outcomes. Whereas in the first study, a positive effect was observed for accuracy with no effect for complexity, in the second study accuracy surged hand in hand with complexity resulting from lower lexical errors. The results obtained from the third study revealed that the effect of task complexity on L2 production was not bound to the oral or written nature of the language use (i.e., communication mode).

Gilbert (2007) explored the role of pre-task planning and the degrees of displacement on language fluency, accuracy and complexity in learners' oral production. He compared the oral production across accuracy, fluency and complexity in a a) pre-task planning Here-and-Now context, pre-task planning There-and-Then context, no-pre-task planning Here-and-Now, and no-pre-task planning There-and-Then context. Gilbert reached to the conclusion that simple Here-and-Now and complex There-and-Then tasks carried out with 10-minute planning limit led to high fluency and that neither of these contexts exerted an influence upon participants' accuracy and complexity. Consequently, in contrast to the no planning conditions, the planning conditions caused higher fluency without any effect for accuracy or complexity.

Similar results were found for oral and written modes. As a function of increasing task complexity, a significant positive effect for accuracy in oral and written modes, no effect on lexical variety in oral and written modes, no effect for syntactic complexity in written mode, and a significant higher syntactic complexity in the simple task performance in oral production were found. However, most of the previous research has focused on the written communicative mode with a lack of due attention to the oral production of learners. Besides, there has been no study to compare the effectiveness of recast corrective feedback and task complexity on three

dimensions of oral language production which are fluency, accuracy and complexity. Considering this, the present study was an attempt to provide insights into these gaps in the literature of task-based language teaching and corrective feedback.

## 2. 2. *Recasts in L2 Acquisition*

Within the communicative language teaching approaches, there have been numerous attempts to examine the potential role of recasts for giving corrective feedback in L2/FL learning. This popularity stems partly from the fact that L2 acquisition although not the same as L1 acquisition, shares several specificities such as similar strategies, processes, error types, and developmental patterns in (Ellis, 1994; Lightbown & Spada, 1999). Recasts are assumed to play a role in first language acquisition since learners are known to learn without any explicit instruction. An idea has been put forward that L2 learners may in the same way be capable of learning the target language free of any instruction (Dulay, Burt, & Krashen, 1982). Therefore, it can be predicted that recasts also have a role in second language acquisition. Recasts as a type of correction in language learning have been the target of empirical studies in both classroom research and laboratory context.

Recasts have been mostly defined as utterances that reiterate a student's wrong sentence, changing only the production of the sentence without changing the meaning (Nicholas, Lightbown & Spada, 1999). Lyster and Ranta (1997) referred to recasts as a type of corrective feedback in which the teacher reformulates all or part of an erroneous utterance, minus the error. Other scholars have provided definitions with essentially the same meaning. For example, Spada and Frohlich (1995, p. 24) define "paraphrase" as "reformulation of a previous incorrect utterance" and Chaudron (1977) defines "repetition with change" as a response to learner error in which the teacher "simply adds correction and continues to other topics" (p.39).

The majority of research in L2 literature has considered recasts to provide negative evidence (e.g., Doughty & Varela, 1998; Long & Robinson, 1998; Oliver, 1995), but this assumption is in some ways not without problems. Empirical research in L2 settings has raised questions about the degree to which recasts would lead learners to gain information about what is not grammatical in L2.

There have been many studies undertaken to examine the effectiveness of different types of corrective feedbacks. Many of these studies have dealt with recast as it is most commonly used in language learning. In a similar manner, the studies conducted by Panaova and Lyster (2002) and Carroll and Swain (1993) demonstrated that in spite of the fact that learners are exposed to recasts more often compared to other corrective feedbacks, it resulted to the lowest rate of uptake while elicitation, metalinguistic clues, clarification and repetition of error led to higher rates of uptake.

Ammar and Spada (2006), in a quasi-experimental study, researched the impacts of recasts and prompts on L2 learners' written and oral skills regarding proficiency levels and found that prompts were more viable than recasts and that the viability of recasts was delicate to the learners' proficiency level. Specifically, high-proficiency learners profited similarly from both prompts and recasts, while low-proficiency learners profited essentially more from prompts than recasts.

Lyster and Izquierdo (2009) tested the effect of recast and prompts on the learning of linguistic gender among French learners and asserted that both classes of feedback are useful. Learners getting recasts profited from repeated exposure to positive samples and in addition had the chance to construe negative evidence, while learners getting prompts or clarification requests had the advantage of repeated exposure to negative proof and the chance to use modified output.

Nassaji (2009) explored both immediate and delayed impacts of two different sorts of interactional feedback, i.e., recasts versus elicitations which uncovered that recasts were more successful than elicitations in immediate influence. Additionally,

the findings of this study showed that in both feedback sorts, the more explicit type was more efficient compare to implicit method. Thus, the level of explicitness was accounted for to be exceptionally important in the adequacy of these two sorts of feedback.

In a photo description task, Révész (2012) examined the effect of recasts on language development, using varying degrees of task complexity. As for complexity, she increased or decreased it by providing or removing photo description. In the less complex task, the learners had access to some pictures which provided some visual aids. In contrast, the more complex tasks required the learners to describe while the pictures had been removed. The findings showed that the recasts can be of greater use when produced under complex conditions.

Although the available literature on the role of recasts compared to other types of corrective feedback refer to its popularity and effectiveness, the studies vary in their design and the multiplicity of factors involved. And, most importantly this plethora of research mostly examines these variables in the written production language learners excluding the significance of oral production tasks. To address these research gaps, this article contributes to the emerging body of research into the effect of cognitive task complexity and corrective feedback in the form of recasts for successful oral language production. If increasing task complexity for intermediate proficiency level learners elicits more forms that are the distinctive features of the advanced level, it can be argued that increasing task complexity stretches learners' interlanguage system. Robinson (2011) predicts that increasing cognitive complexity of tasks along the resource-directing dimension will increase the use of developmentally more advanced forms of language.

### *2. 3. Research Questions*

This study addresses the following research questions:

1. Does task complexity have any significant effect on intermediate learners' speaking accuracy and fluency?
2. Does employing recasts have any significant effect on intermediate learners' speaking accuracy and fluency?
3. Are there any significant differences between the effects of task complexity and recasts on intermediate EFL learners' speaking fluency and accuracy?

## **3. Methodology**

### *3.1. Participants*

At the outset of the study, the researcher collected the necessary consent forms from the participants and their instructors, all of whom agreed to participate in the study. Based on the nature of the treatment and the variables, i.e., task complexity, recast and oral accuracy and fluency, a decision was made to select the intermediate level of proficiency learners. Therefore, six intact classes were administered the Preliminary English Test (PET) and only the learners whose score fell one standard deviation above and below the mean were selected. Consequently, a total number of 60 intermediate level learners were selected for the purpose of the study where two classes (N = 22) received tasks with varying degrees of complexity, the other two classes (N = 20) were exposed to recasts, and two intact classes served as the control group (N = 18). The details of the classroom instruction and treatment are explained in 'procedure' section. The age of the participants ranged between 18-23 years old and their gender was not taken into account as a variable in this study since only male learners took part in the study. All of the participants have attended the English institute for five consecutive terms and it was assumed that nearly all the participant

had a similar foreign language learning experience. In addition, all of them were native Persian speakers and they learned English in instructed settings.

### 3. 2. *Instruments*

#### 3. 2. 1. *Oral Narrative Tasks*

The oral narrative tasks constituted the main materials for the conduction of this study. These oral narrative tasks asked the learners to narrate a story orally according to a set of pictures presented to them from Heaton (1975). There were several reasons for the use of oral narrative tasks. For the measurement of learners' oral language use, most of the previous studies have used oral narrative tasks and therefore this study adopted this task in order to make comparisons with past research possible. Secondly, Yuan and Ellis advocated the use of oral narrative tasks based on the fact that these tasks are monologic rather than dialogic and therefore they measure learners' performance not impacted by any interactional factors. Thirdly, since this study aimed at eliciting learners' interpretation, oral narrative tasks were used to engage the learners' with a series of pictures requiring involvement on the part of learners.

It needs to be noted that the same oral narrative task (see Appendix A) was used for both the ETC and ER experimental groups to get insight about their accuracy and fluency rates in oral production. In the pre-test, learners were asked to narrate a story based on a picture strip entitled "A Surprise" (Heaton, 1975). For the ETC group, two other different oral narrative tasks were used. One (see Appendix B) was a complex task according to the Robinson's Triadic Framework along the +/- reasoning and the +/- few elements dimensions. This task required decision making for a larger number of people involved in the pictures and a greater number of events and is regarded more complex. This task necessitated participants' making a distinction between a larger number of individuals and the two events. Based on Révész (2012) who argued that in both the field of SLA (Robinson, 2001, 2005) and cognitive psychology (Halford, Cowan, & Andrews, 2007) performing tasks that need more reasoning and consist of more elements are approved as more cognitively complex compared to the tasks that include lesser demands on reasoning and a smaller number of elements. In this task, learners were each given two minutes to look at the pictures and then were asked to tell a story accordingly. In the ETC group, after the use of this complex task, learners were given a cognitively simple task in the next session and were asked to tell a story in a similar way. The point of departure only lied in the complexity of the task. This simple task (see Appendix C) which was also adopted from Heaton (1975) learners were presented with pictures showing a simple stream of events according to the +/- reasoning and the +/- few elements dimensions. In this task too, learners were given two minutes to prepare their narratives. It should be highlighted that learners were asked to first carry out the simple task and in the next session they were provided with the complex task. After the completion of these tasks, learners' oral narratives were analyzed in terms of the accuracy and fluency criteria (see the following section for details).

For the other experimental group (i.e., TR), in addition to the same pre-test used for the ETC, only the simple oral narrative task (Appendix C) was used for treatment since the purpose in this group was only to measure the effect of recast corrective feedback not task complexity. In this group, when learners narrated the story, the teacher provided them with recasts to correct their errors. In the next session, a similar simple task requiring the narration of events in the past tense was used as a post-test to measure learners' rates of accuracy and fluency. Finally, it should be mentioned that the control group learners performed only simple tasks with no recasts or other corrective feedback type.

#### 3. 2. 2. *Measures of Accuracy and Fluency*

Standard measures for accuracy and fluency based on previous research (e.g., Crookes, 1989; Foster & Skehan, 1996; Wendel, 1997; Yuan & Ellis, 2003) were used. Fluency was measured based on the number of syllables per minute. This was calculated through dividing the number of syllables within each narration (with all syllables, words, phrases that were repeated, reformulated, or rephrased excluded) by the number of seconds used to complete the narration and multiplied by 60. For accuracy, as was in Yuan and Ellis (2003), 'error-free clauses' and 'correct verb forms' were calculated. Error free clauses included the percent of clauses with no syntactic, lexic and morphological errors. And, the correct verb forms referred to the percent of the correctly used verbs according to tense, aspect, modality, and subject-verb agreement.

### *3. 3. Procedure*

Six intact classes of intermediate level learners were selected as the context of this study. Learners' level of proficiency was ascertained by means of Preliminary English Test (PET) and their oral productions in terms of accuracy and fluency were pre-tested by means of oral narrative tasks. The participants performed the task in their normal classroom time in a language institute in Tehran. The classes were held two days a week and each session lasted for 90 minutes. The purpose of this study was to evaluate the role of task complexity and recast corrective feedback on learners' oral productions in terms of accuracy and fluency. For this purpose, two experimental groups were selected. One experimental group called ETC received a simple followed by a complex oral narrative task in addition to a pre-test all designed by Heaton (1975). The other experimental group, that is ER, was exposed to the provision of recasts during learners' performance in the first oral narrative task followed by a second task aimed at measuring the effect of recasts. It needs to be noted that in the ETC learners did not receive any feedback on their language productions and in the ER learners only performed cognitively simple tasks. After these tasks, learners productions were analyzes for instances of fluency and accuracy. It needs to be noted that for the control group learners who were also engaged in oral narrative tasks, neither tasks with different levels of complexity nor any feedback was provided. Put differently, control group learners carried out a simple task without the complexity criterion and corrective feedback provision.

### *3. 4. Data Analysis*

In order to provide answers to the first two research questions of the present study, a series of repeated measures analysis of variance (ANOVA) were performed. The alpha for achieving statistical significance was set at .05. Prior to the conduction of statistical procedures for the research questions, the inter-rater reliability of two raters' evaluation of the participants' oral transcription was computed using Cohen's Kappa test. The resulting Kappa of .85 indicates that raters provided similar opinions.

## **4. Results and Discussion**

### *4. 1. 1. Research Question 1*

For the first research question which was concerned with the difference between the simple and complex oral narrative tasks on learners' accuracy and fluency, two repeated measures ANOVA were carried out. First the results of descriptive statistics for fluency and accuracy are displayed in Table 1.

**Table 1.***Descriptive Statistics Results for Oral Fluency and Accuracy across Task Complexity*

		<i>Mean</i>	<i>Std. Deviation</i>	<i>N</i>
Fluency	Pre-test	78.86	11.02	22
	test1	82.13	9.68	22
	test2	73.59	8.10	22
Accuracy	Pretest	52.68	5.37	18
	test1	53.13	4.73	18
	test2	55.18	4.80	18

As is observed in Table 1, the mean score of test 1 (i.e., the simple task ( $M = 82.13$ ,  $SD = 9.68$ )) was higher than both the pre-test ( $M = 78.86$ ,  $SD = 11.02$ ) and test2 (i.e., the complex task ( $M = 73.59$ ,  $SD = 8.10$ )) with regard to fluency. The results of descriptive statistics, for accuracy, pinpoint a higher mean score for test 2 ( $M = 55.18$ ,  $SD = 4.80$ ) compared to pre-test ( $M = 52.68$ ,  $SD = 5.37$ ) and test 1 ( $M = 53.13$ ,  $SD = 4.73$ ). Results of ANOVA are reported in Table 2.

Table 2.

*ANOVA Results for Oral Fluency and Accuracy across Task Complexity*

<i>Source</i>	<i>test</i>	<i>Type III Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>	<i>Partial Eta Squared</i>
Fluency	Linear	512.121	1	512.121	8.396	.009	.286
Error(test)	Linear	1905.182	21	90.72			
Accuracy	Linear	68.750	1	68.750	27.370	.000	.566
Error(test)	Linear	52.750	21	2.512			

The results of ANOVA indicated statistically significant effects for the use of complex tasks on learners' oral fluency,  $F(1, 21) = 8.39$ ,  $p = 0.009$ . Results also indicated a moderate effect size (Eta squared = .28) since the independent variable (task complexity as measured from pre-test to test1) could have a major prediction of the variations in the dependent variable (oral fluency). The results of ANOVA for accuracy, too, indicated statistically significant effects for the use of complex tasks,  $F(1, 21) = 27.37$ ,  $p = 0.000$ , with a strong effect size (Eta squared = .56). Figures 1 and 2 show the variations in oral fluency and accuracy according to the complexity of the tasks.

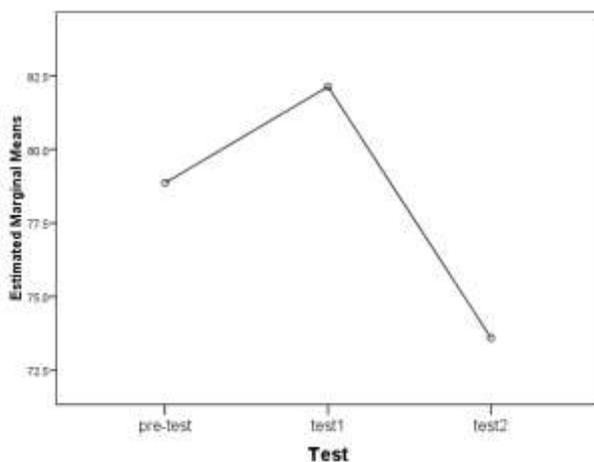


Figure 1. Oral fluency and task complexity

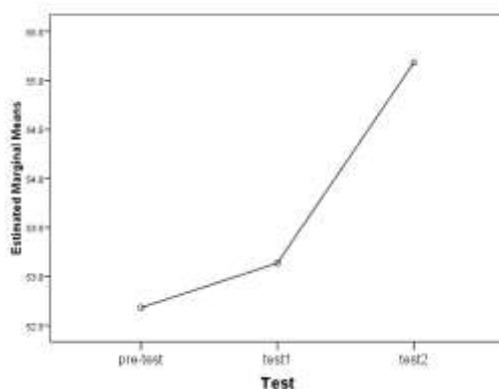


Figure 2. Oral accuracy and task complexity

The results of ANOVA for the first research question on the whole showed significant effect for both oral accuracy and fluency. For oral fluency, the cognitively simple task achieved a higher mean score and for the accuracy, the more complex task was superior. In sum, it can be stated that although task complexity enhanced accuracy, it did not exert any effect of learners' fluency in their oral narratives.

#### 4. 1. 2. Research Question 2

For the investigation of the second research question concerned with the possible effect of recast corrective feedback on EFL learners' fluent and accurate oral productions, a repeated measures ANOVA was performed. First, the results of descriptive statistics are demonstrated for fluency.

Table 3.  
*Descriptive Statistics Results for Oral Fluency and Accuracy with Recast Correction*

		<i>Mean</i>	<i>Std. Deviation</i>	<i>N</i>
Fluency	Pretest	78.15	12.61	20
	test1	76.45	6.49	20
	test2	81.50	6.77	20
Accuracy	pre-test	54.10	5.16	20
	test1	54.90	4.59	20
	test2	56.90	3.82	20

The descriptive statistics results indicate an obvious enhancement of oral fluency in test2 ( $M = 81.50$ ,  $SD = 6.77$ ) compared to test1 ( $M = 76.45$ ,  $SD = 6.49$ ) and pre-test ( $M = 78.15$ ,  $SD = 12.61$ ), suggesting a positive role for the provision of recast corrective feedback on learners' errors in their oral narratives. The descriptive statistics for accuracy demonstrate a higher mean score in test2 ( $M = 56.90$ ,  $SD = 3.82$ ) compared to test1 ( $M = 54.90$ ,  $SD = 4.59$ ) and pre-test ( $M = 54.10$ ,  $SD = 5.16$ ), suggesting a positive role for the provision of recast corrective feedback on learners' errors in their oral narratives. Results of ANOVA are presented in Table 4.

Table 4.  
*ANOVA Results for Oral Fluency and Accuracy with Recast Correction*

<i>Source</i>	<i>test</i>	<i>Type III Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>	<i>Partial Eta Squared</i>
Fluency	Linear	151.87	1	151.87	11.07	.004	.368
Error(test)	Linear	1171.275	19	61.646			
Accuracy	Linear	78.40	1	78.40	12.667	.002	.400
Error(test)	Linear	117.600	19	6.189			

The results of ANOVA indicated statistically significant effects for the provision of recasts on learners' oral fluency,  $F(1, 19) = 11.07$ ,  $p = 0.004$ . Results also exhibited a moderate effect size (Eta squared = .36). The results of ANOVA also indicated statistically significant effects for the provision of recasts on learners' oral accuracy,  $F(1, 19) = 12.66$ ,  $p = 0.002$ , with a moderate effect size (Eta squared = .40). Figure 3 shows the variations in oral fluency and Figure 4 illuminates accuracy according to the role of recasts.

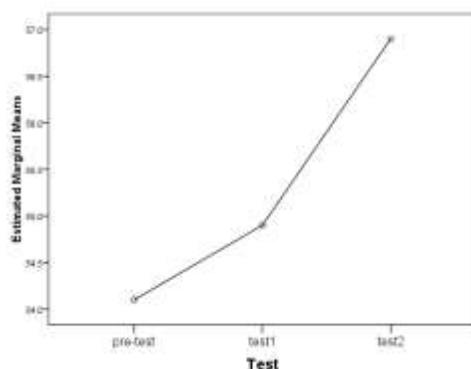


Figure 3. Oral fluency and recast

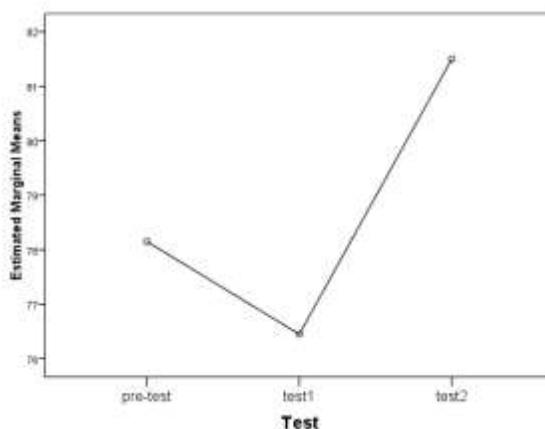


Figure 4.4. Oral accuracy and recast

In sum, the results of ANOVA for the second research question signified a positive effect for the provision of recast corrective feedback on EFL learners' enhanced oral accuracy and fluency in oral narrative tasks.

#### 4. 1. 3. Research Question 3

In order to compare the effect of task complexity and recasts on the learners' accuracy and fluency, a one-way ANOVA was carried out. First, the results of descriptive statistics for fluency are presented in Table 5.

Table 5.

*Descriptive Statistics Results for Oral Fluency and Accuracy with Recast Correction and Task Complexity*

<i>Groups</i>	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Std. Error Mean</i>
ETC	22	74.75	8.14	2.03
ER	20	79.22	7.72	1.82
Control	18	75.83	9.43	2.22
ETC	22	55.18	4.80	1.02
ER	20	56.90	3.82	.85
Control	18	52.83	5.56	1.31

As the mean and standard deviation scores in Table 5 show, the ER experimental group ( $M = 79.22$ ,  $SD = 7.72$ ) was more effective in bringing about fluent language production than the ETC experimental group ( $M = 74.75$ ,  $SD = 8.14$ ). The results of ANOVA further showed statistically significant difference ( $F(2, ?) = 5.18$ ,  $p = .009$ ), with the Tukey post-hoc test signifying a difference only between ETC and ER ( $p = .007$ ). As the mean and standard deviation scores for oral accuracy in Table 3 show, there are very nuance differences between the ER experimental group ( $M = 56.90$ ,  $SD = 3.82$ ) and the ETC experimental group ( $M = 55.13$ ,  $SD = 4.80$ ) regarding the learners' accuracy in their oral narrative productions. The results of ANOVA show statistically significant difference ( $F(2) = 3.47$ ,  $p = .03$ ), with the post-test Tukey illuminating between ER and control group ( $p = .02$ ). Tables 6 depicts the results of ANOVA and Table 7 illuminates Tukey post-hoc test results.

Table 6.

*One-way ANOVA Results for Oral Fluency and Accuracy with Recast Correction*

		<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
Fluency	Between Groups	684.582	2	342.291	5.180	.009
	Within Groups	3766.818	57	66.085		
	Total	4451.400	59			
Accuracy	Between Groups	157.277	2	78.639	3.476	.038
	Within Groups	1289.573	57	22.624		
	Total	1446.850	59			

Table 7.

<i>Tukey Test Results for Oral Fluency and Accuracy with Recast Correction(I) groups</i>	<i>(J) groups</i>	<i>Mean Difference (I-J)</i>	<i>Std. Error</i>	<i>Sig.</i>	<i>95% Confidence Interval</i>	
					<i>Lower Bound</i>	<i>Upper Bound</i>
ETC	ER	-1.71818	1.46955	.476	-5.2545	1.8182

	Control	2.34848	1.51171	.274	-1.2893	5.9863
ER	ETC	1.71818	1.46955	.476	-1.8182	5.2545
	Control	4.06667*	1.54535	.029	.3479	7.7854
Control	ETC	-2.34848	1.51171	.274	-5.9863	1.2893
	ER	-4.06667*	1.54535	.029	-7.7854	-.3479

\*. The mean difference is significant at the 0.05 level.

#### 4. 2. Discussion

This study attempted to look into the effect of increasing task complexity and the provision of recast in separate experiments on the EFL learners' oral language production and their fluency and accuracy. For both experiments, oral narrative tasks were used (Heaton, 1975), adjusted in terms of complexity according to Robinson's Triadic Framework along the +/- reasoning and the +/- few elements dimensions. For the effect of recasts, learners were provided with recasts when performing their oral narrative tasks. The obtained data were subject to repeated measures ANOVA and one-way ANOVA to provide answers to the research questions.

The results for task complexity revealed that increasing task complexity led to significant positive outcomes in terms of accuracy. Although this result gets support from previous studies (i.e., Kuiken & Vedder, 2008, 2011), it would be crude to arrive at generalizations since there are variability in task types, task manipulation, and measures used in previous research which makes the cross-comparison one-dimensional. Past studies concluded the effectiveness of complexity on language accuracy in different language production task- with most of the tasks being in written mode. In view of the findings regarding accuracy, it seems that accuracy and complexity rely on a multiple resources pool since an apparent lack of competition for attention between complexity and accuracy led to enhancement in accuracy. This rejects Skehan's (1998) TOH and advocates Robinson's (2001, 2011) CH. In contrast to the positive results obtained for accuracy, complex tasks led to low fluency in L2 oral production as learners were found to be more fluent in the simple task compared to the cognitively demanding task. This finding clearly reflects Robinson's (2011) prediction of the opposite resulting effects of raising task complexity on fluency in L2 production.

It is quintessential to elaborate the findings for the first research question in light of Robinson's arguments with regard to 'language production'. Similar to Skehan (2014), Robinson (2011) refers to Levelt's (1989) model of speech production to validate his theoretical rationale. He believes that escalating cognitive task complexity brings about more effort at the preverbal conceptualization step concerning the conceptual demands imposed on the conceptualizer. This, in turn, leads to encoding the abstract data by means of linguistically adequate features at the lexico-grammatical step, bringing about a more accurate and complex L2 production. In contrast, Skehan (2014) claims that mutual increase in accuracy and complexity is not possible since language learners' processing capacity is restricted. Consequently, even though both Robinson and Skehan base their arguments on Levelt's speech production theory to justify their claims, their arguments are opposing.

For the second research question that investigate the effect of recast corrective feedback on learners' accuracy and fluency in oral narratives, results demonstrated a positive effect for both. The most appealing aspect of this finding is that unlike common belief recasts as corrective feedback did not prohibit fluency; rather, facilitated monitoring, which in turn led to both more accurate and faster processing.

In other words, providing recasts to learners stimulated an ideal proceduralization atmosphere in which learners began to rely on procedural knowledge during oral language production. It should also be noted that the participants in the present study already had some grammatical knowledge at their disposal before the study, and proceduralization was noted in increased fluency. This result is supported by those of Sato and Lyster (2012) who argue that recasts “enabled learners to reassess non-target structures retrieved from long-term memory by reprocessing them in working memory with the help of declarative knowledge” (p. 611). This result can be clarified according to Levelt’s speech production model which explains improvement in accuracy as a result of complexity in the pre-articulatory monitoring phase. Learners focus and notice their errors and amend their erroneous utterances before ultimately producing the speech. It can also be added that proceduralization was hastened in the formulator where syntactic analysis is carried out.

In light of SLA, this result may imply that learners receiving recasts were more successful in focusing on language forms (Loewen, 2011). Put simply, learners were enabled to focus on form while reserving their preliminary attention on meaning when (a) their explicit knowledge surpasses their automatized online language production capabilities given their memory span to modify their attention to linguistic forms (Khezrlou & Ellis, 2017; VanPatten, 1996), and (b) the target task is not cognitively too demanding (Bygate, 1998; Seedhouse, 1997). The latter condition was specially the case in the present study since learners were provided with simple tasks. The fact that their fluency expanded reflects the fact that recasts do not impose a high cognitive load; rather, they assist learners in building up correct form-meaning mappings (VanPatten, 2000). Some researchers are of the opinion that corrective feedback, either implicit or explicit, is productive only on accuracy development since it interferes with the flow of speech (Harmer, 1991), which is also confirmed by some teachers (Basturkmen, Loewen, & Ellis, 2004). Although the present study did not explore the interruption of CF with language communication in the classroom, it proved that the provision of recasts does not hamper the development of fluency.

Results for the last research question which compared the relative effect of task complexity and recasts on EFL learners’ oral accuracy and fluency did not show significant differences. In light of the findings obtained from the first and second research question, it can be argued that each of these conditions had its own effect of language production. Even though both the task complexity and recasts led to improvements in the tests following the pre-test, they had meaningful effect on accuracy and fluency but in different ways. Therefore, it is assumed that these two conditions are effective in improving the oral production of learners in ‘isolation’; however, their combined effect is question warranting further research.

### **5. Conclusion and Implication**

The present study looked into the role of task complexity according to the resource-directing dimension and the provision of recast corrective feedback on EFL learners’ oral language production. Data were elicited from individual task enactment in both cognitively simple and more demanding complex oral narrative tasks. A promising area of further research would be probing the effects of task complexity and corrective feedback (not exclusively recasts) on the collaborative oral task conduction in tasks with varying degrees of complexity. The investigation can center on the linguistic and spoken opportunities arise from collaborative task performance in the simple in contrast to complex oral tasks.

A number of pedagogical implications can be derived and proposed based on the obtained results. Firstly, it is suggested that teachers consider adjusting the degrees of the complexity of the tasks that they use in their classrooms in order to achieve fluency, accuracy and complexity in their learners’ language output. Although the

results of this study showed that increasing task complexity led to higher accuracy, it did show a low fluent performance among the participants. Therefore, to achieve all these dimensions, it is advisable to align these dimensions according to the learners' individual variables such as level of proficiency. Secondly, teachers can increase the complexity of their utilized tasks in an attempt to develop opportunities for task-based oriented instructional mediations for the growth of both complexity and accuracy. Teachers are encouraged to foster flexible approaches to learning through using numerous instructional and assessment methods enabling the students to commence and carry on involvement with cognitively demanding tasks of L2 oral production.

Significant implications can also be gleaned from the findings related to the provision of recasts as corrective feedback over learners' erroneous utterances. Presenting L2 learners with ample opportunities to engage in focus of form can be suggested since recasts were found to exert a positive influence upon both accuracy and fluency development. It is crucial to note, however, that the participants in the present study already possessed knowledge of form and needed to proceduralize their rule-based knowledge to retrieve it while involved in language production. In such cases, the pedagogical choice of relying too much on learners' analysis of the forms during meaningful interaction is not encouraged which is also maintained by Lyster and Mori's (2006). As an alternative, it seems more essential to engage learners with the tasks that require their engagement in meaningful repeated practice (Khezrlou, 2012).

The issue of TBLT and task complexity are wide-enough not to be investigated with due coverage and details in one study. Therefore, future investigations are encouraged to examine the predictions of the Cognition Hypothesis with respect to the effect of other features of task complexity in second language oral production. More specifically, future research needs to look into the interaction effect of task complexity taking into account the role of pre-task planning conditions on oral language. Furthermore, the moderating role of individual learner variables, as identified by Robinson (2001), plays a significant role in changing the results for task complexity. Levels of motivation, aptitude, anxiety, and working memory capacity need to be considered to further enlighten the interactive effect of task design features and individual variables on language production. Besides, the interactive effect of resource-directing feature and previous knowledge and the moderating role of individual variables should be investigated in future research studies.

This study asked the participants to produce their oral narratives with no planning restriction or criterion. Future research is needed to inspect the effects of different types of the pre-task and on-line planning compared to no-planning in oral language production, with due attention given to the affective factors that might influence planning in the performance of both simple and complex tasks. The results of such studies are needed in order to assist teachers in corresponding the tasks they adopt in their language classrooms with the learners' pedagogical needs and purposes.

There are also other areas of research that can benefit from more investigation into the issue of task complexity and corrective feedback. First, this study included only intermediate proficiency level adult learners, necessitating future research conducted with other levels of proficiency. Second, this study investigated the effect of recast as the corrective feedback type and did not take into account other corrective feedback types. Future research can examine the effect of other, probably more explicit feedback types on learners' oral and/or written language production in simple versus complex tasks.

## References

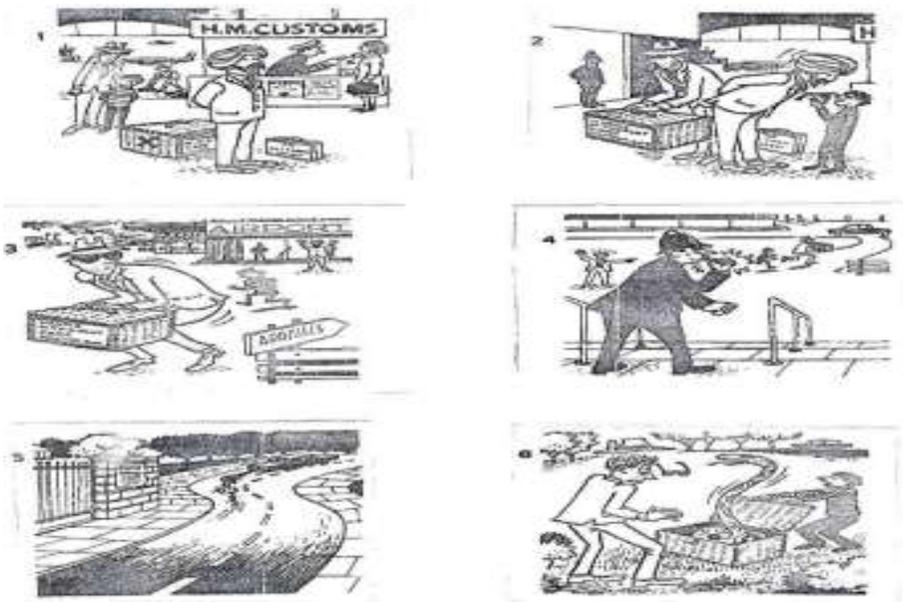
- Ammar, A., & Spada, N. (2006).** One size fits all? Recasts, prompts, and L2 learning. *Studies in Second Language Acquisition*, 28, 543-574.
- Basturkmen, H., Loewen, S., & Ellis, R. (2004).** Teachers' stated beliefs about incidental focus on form and their classroom practices. *Applied Linguistics*, 25(2), 243-272.
- Breen, M. (1989). The evaluation cycle for language learning tasks. In R. K. Johnson (Ed.), *The second language curriculum* (pp. 187-206). Cambridge, UK: Cambridge University Press.
- Bygate, M. (1998). Theoretical perspectives on speaking. *Annual Review of Applied Linguistics*, 18, 20-42.
- Bygate, M., Skehan, P., & Swain, M. (2001). *Researching pedagogic tasks: Second language learning, teaching, and testing*. London: Longman.
- Carroll, S., & Swain, M. (1993). Explicit and implicit negative feedback: An empirical study of the learning of linguistic generalizations. *Studies in Second Language Acquisition*, 15, 357-386.
- Chaudron, C. (1977). A descriptive model of discourse in the corrective treatment of learners' errors. *Language Learning*, 27(1), 29-46.
- Crookes, G. (1989). Planning and interlanguage variation. *Studies in Second Language Acquisition*, 11, 367-383.
- de Jong, N., Steinel, M. Florijn, A. Schoonen, R. & Hulstijn, J. (2012). Facets of speaking proficiency. *Studies in Second Language Acquisition* 34(1), 5-34.
- Doughty, C., & Varela, E. (1998). Communicative focus on form. In C. Doughty, & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 114-138). Cambridge: Cambridge University Press.
- Dulay, H., Burt, M., & Krashen, S. (1982).** *Language two*. Oxford: Oxford University Press.
- Ellis, R. (1985).** *Understanding second language acquisition*. Oxford: Oxford University Press.
- Ellis, R. (1994).** *The study of second language acquisition*. Oxford: Oxford University Press.
- Ellis, R. (2003). *Task-based language learning and teaching*. Oxford: Oxford University Press.
- Ellis, R. (2012). *Language teaching research and language pedagogy*. Oxford: Wiley-BlackWell.
- Foster, P., & Skehan, P. (1996). The influence of planning on performance in task-based learning. *Studies in Second Language Acquisition*, 18, 299-324.
- Gilabert, R. (2007). The simultaneous manipulation of task complexity along planning time and [Here-and-Now]: Effects on L2 oral production. In M. D. P. G. Mayo (Ed.), *Investigating tasks in formal language learning* (pp. 44-68). Bristol: Multilingual Matters.
- Halford G. S., Cowan, N., & Andrews, G. (2007). Separating cognitive capacity from knowledge: A new hypothesis. *Trends in Cognitive Sciences*, 11, 236-242.
- Heaton, J. B. (1975). *Beginning composition through pictures*. London: Longman Group Limited.
- Hyland, K. (2003). *Second language writing*. New York: Cambridge University Press.
- Jamshidnejad, A. (2010). The construction of oral problems in an EFL context. *Studies in Literature and Language*, 1(6), 8-22.
- Khezlrou, S. (2012). The relationship between cognitive and metacognitive strategies, age and level of education. *The Reading Matrix*, 12(1), 50-61.

- Khezlrou, S., & Ellis, R. (2017). Effects of computer-assisted glosses on EFL learners' vocabulary acquisition and reading comprehension in three learning conditions. *System*, 65, 104-116.
- Kormos, J. (2011). Task complexity and linguistic and discourse features of narrative writing performance. *Journal of Second Language Writing*, 20(2), 148-161.
- Kuiken, F., & Vedder, I. (2008). Cognitive task complexity and written output in Italian and French as a foreign language. *Journal of Second Language Writing*, 17(1), 48-60.
- Kuiken, F., & Vedder, I. (2012). Syntactic complexity, lexical variation and accuracy as a function of task complexity and proficiency level in L2 writing and speaking. In A. Housen, F. Kuiken, & I. Vedder (Eds.), *Dimensions of L2 performance and proficiency: Complexity, accuracy and fluency in SLA*. (pp. 143-170). Philadelphia: John Benjamins.
- Levelt, W. (1989). *Speaking: From intention to articulation*. Cambridge, MA.
- Lightbown, P., & Spada, N. M. (1999). *How languages are learned*. Oxford: Oxford University Press.
- Loewen, S. (2011). *Focus on form*. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 576-592). New York: Routledge.
- Long, M. (2015). *Second language acquisition and task-based language teaching*. Malden, MA: Wiley-Blackwell.
- Long, M. H., & Robinson, P. (1998). Focus on form: Theory, research and practice. In C. Doughty & J. Williams (Eds.), *Focus on form in second language acquisition* (pp. 15-41). Cambridge, England: Cambridge University Press.
- Lyster, R., & Izquierdo, J. (2009). Prompts versus recasts in dyadic interaction. *Language Learning*, 59, 453-498
- Lyster, R., & Mori, H. (2006). Interactional feedback and instructional counterbalance. **Studies of Second Language Acquisition**, 28, 269-300.
- Lyster, R., & Ranta, L. (1997). Corrective feedback and learners' uptake: negotiation of form in communicative classrooms. *Studies in Second Language Acquisition*, 19, 37 - 61.
- Nassaji, H. (2009). *Interactional feedback and L2 learners' development*. Paper presented at the International Conference, University of Yazd, Yazd, Iran.
- Nunan, D. (1989). *Designing tasks for the communicative classroom*. Cambridge: Cambridge University Press.
- Occhipinti, A. (2009). *Foreign language anxiety in in-class speaking activities: Two learning contexts in comparison*. Unpublished MA thesis, The University of Oslo.
- Oliver, R. (1995). Negative feedback in child NS-NNS conversation. **Studies in Second Language Acquisition** 17, 459-81.
- Panova, I., & R. Lyster (2002). Patterns of corrective feedback and uptake in an adult ESL classroom. *TESOL Quarterly*, 36, 573-595.
- Révész, A. (2007). Working memory and the observed effectiveness of recasts on different L2 outcome measures. *Language Learning*, 62(1), 93-132.
- Richards, J. C., & W. A. Renandya. (eds.). (2002). *Methodology in language teaching: An anthology of current practice*. Cambridge: Cambridge University.
- Rivers, W. M. (1981). *Teaching foreign-language skills*. Chicago: University of Chicago Press.

- Robinson, P. (2001). Task complexity, task difficulty, and task production: Exploring interactions in a componential framework. *Applied Linguistics*, 22(1), 27-57.
- Robinson, P. (2005). Cognitive complexity and task sequencing: Studies in a componential framework for second language task design. *IRAL-International Review of Applied Linguistics in Language Teaching*, 43(1), 1-32.
- Robinson, P. (2007). Task complexity, theory of mind, and intentional reasoning: Effects on L2 speech production, interaction, uptake and perceptions of task difficulty. *IRAL-International Review of Applied Linguistics in Language Teaching*, 45(3), 193-213.
- Robinson, P. (2010). Situating and distributing cognition. Across task demands: The SSARC model of pedagogic task sequencing. In M. Putz & L. Sicola (Eds.), *Cognitive processing in second language acquisition: Inside the learner's mind*, (pp. 243-268). Amsterdam: John Benjamins.
- Robinson, P. (2011). *Second language task complexity: Researching the cognition hypothesis of language learning and performance*. Philadelphia/Amsterdam: John Benjamins.
- Saito, K., & Lyster, R. (2012). Effects of form-focused instruction and corrective feedback on L2 pronunciation development of /ɹ/ by Japanese learners of English. *Language Learning*, 62(2), 595-633.
- Seedhouse, P. (1997). The case of the missing "no": The relationship between pedagogy and interaction. *Language Learning*, 47(3), 547-583.
- Skehan, P. (1996). A framework for the implementation of task-based instruction. *Applied Linguistics*, 17(1), 38-62.
- Skehan, P. (1998). *A cognitive approach to language learning*. Oxford: Oxford University Press.
- Skehan, P. (2001). Tasks and language performance. In M. Bygate, M. Swain, & P. Skehan (Eds.), *Researching pedagogic tasks: Second language learning, teaching, and testing* (pp. 167-185). New York, NY: Routledge.
- Skehan, P. (2003). Task-based instruction. *Language Teaching*, 36(1), 1-14.
- Skehan, P. (2014). Limited attentional capacity, second language performance, and task-based pedagogy. In P. Skehan (Ed.), *Processing perspectives on task performance (task-based language teaching)* (pp. 211-260). Amsterdam: John Benjamins.
- Skehan, P., & Foster, P. (2001). Cognition and tasks. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 183-205). New York: Cambridge University Press.
- Spada, N., & Frohlich, M. (1995). *COLT: Communicative orientation of language teaching observation scheme*. Sydney : Macquarie University. National Centre for English Language Teaching and Research
- VanPatten, B. (1996). *Input processing and grammar instruction in second language acquisition*. Norwood, NJ: Ablex.
- VanPatten, B. (2000). Processing instruction as form-meaning connections: Issues in theory and research. In J. Lee & A. Valdman (Eds.), *Form and meaning: Multiple perspectives* (43-68). Boston: Heinle & Heinle.
- Wendel, J. (1997). *Planning and second language narrative production*. Ph.D. dissertation, Temple University.
- Yuan, F., & Ellis, R. (2003). The effects of pre-task planning and on-line planning on fluency, complexity, and accuracy in L2 monologic oral production. *Applied Linguistics*, 24(1), 1-27.

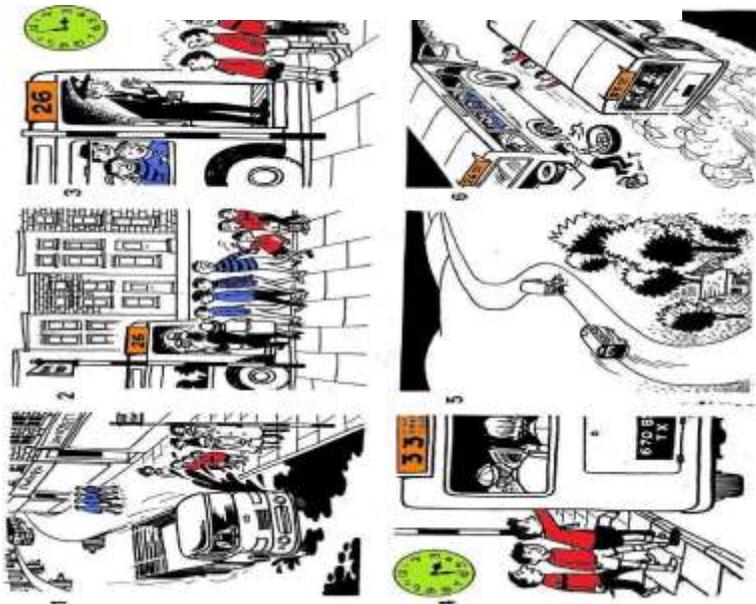
## Appendix A

### A Surprise (Heaton, 1975)



## Appendix B

### Waiting for a bus (Heaton, 1975)



Appendix C  
John and his boxes (Heaton, 1975)

