

The Effect of Topic Familiarity on the Linguistic Complexity of the FL Oral Output of Advanced Iraqi Learners

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Abstract :

This study investigates the effect of topic familiarity on the FL (foreign language) oral output of a group of advanced Iraqi EFL learners in a task-based language teaching/learning framework. Its aim is to investigate the linguistic complexity of the FL oral performance of these learners with the increasing of task complexity by employing two oral monologic tasks in the form of picture descriptions. One of the tasks is familiar (*coronavirus pandemic*) and the other is unfamiliar (*the Kremlin*) in topic. A number of measures of linguistic complexity are used for this purpose. The data collection is done electronically due to quarantine following the spread of corona pandemic. The study follows a quantitative research method. Statistically, paired-samples t-tests are conducted to detect any significant differences in the participants' output between the two tasks. The findings show that task complexity has positively affected four (out of five) measures of syntactic complexity (the number of clauses, the number of AS-units, the number of morphemes, and the ratio of morphemes to AS-units) but negatively affected lexical complexity. This finding is useful in exploring that tasks should be sequenced according to their cognitive complexity to enhance FL performance and development .

Key words: task complexity, linguistic complexity, topic familiarity, FL oral output.

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تأثير الإلمام بالموضوع على تعقيد النتاج الشفوي لمتعلمي اللغة الانكليزية المتقدمين في العراق بوصفها لغة أجنبية

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الملخص:

تبحث هذه الدراسة في تأثير الإلمام بالموضوع على النتاج الشفوي (التعقيد النحوي والمعجمي) لمتعلمي اللغة الانكليزية المتقدمين بوصفها لغة أجنبية حيث استخدم الباحثان مهمتين مختلفتين بالنسبة للإلمام بالموضوع أي أن المهمة الأولى ذات موضوع مألوف للمتعلمين المذكورين والثانية ذات موضوع غير مألوف لهم. ومن اجل معرفة التعقيد النحوي والمعجمي تم عرض مجموعة من الصور لكل موضوع بواسطة Zoom meetings والطلب من كل متعلم في العينة وصف الصور باللغة الانكليزية. استخدمت الدراسة عددا من المقاييس للبيانات التي تم تجميعها الكترونيا بسبب الحظر الوبائي وتحليل النتائج إحصائيا بواسطة t-test للتوصل إلى أن عدم الإلمام بالموضوع قد اثر ايجابيا فقط على أربعة (من بين خمسة) مقاييس للتعقيد النحوي (وهي أجزاء الجمل ووحدات تحليل الكلام وعدد الوحدات الصرفية ونسبتها إلى وحدات تحليل الكلام) ولم يؤثر على التعقيد المعجمي.

الكلمات المفتاحية: تعقيد المهام، الإلمام بالموضوع، التعقيد اللغوي، النتاج الشفوي في اللغة الأجنبية.

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1. Introduction

A major challenge within the domain of task-based language teaching (henceforth TBLT) concerns how FL performance can be measured. Ongoing research has showed that complexity, accuracy, and fluency (henceforth CAF) are three dimensions that not only measure FL output or performance, but also development and proficiency. In the teaching of English as a foreign language contexts, these dimensions are considered as *"the primary epiphenomena of the psycholinguistic processes and mechanisms underlying the acquisition, representation and processing of FL systems"* (Housen, Kuiken, and Vedder, 2012: 2). In the last few years, most of the research on CAF (Robinson, 2001b; Gilabert, 2004; Robinson and Gilabert, 2007; Norris and Ortega, 2009; Bulte and Housen, 2012; Awad, 2017, and many others) has tended to investigate the predictions of two competing hypotheses, Skehan's (1998) Limited Attentional Capacities (henceforth LAC) and Robinson's (2001a, 2001b, 2007) Cognition Hypothesis (henceforth CH), that underline the correlation between cognitive task complexity and L2 performance. Within this agenda, the CH presents a taxonomy of the Triadic Componential Framework (henceforth TCF) that covers a number of task complexity factors that contribute to influence CAF dimensions in a task-based framework. Inspired by the significance of CAF as measures of FL performance, the current study endeavours to measure the participants' FL linguistic complexity, syntactic and lexical. Two levels of cognitive task complexity, namely \pm^1 topic familiarity (prior knowledge as termed in TCF) are selected. Topic familiarity refers to the *"the extent to which differentiated organized background knowledge is available"* on a selected topic (Skehan, 1998: 100).

Topic familiarity is employed in ELT by different terminologies. As Abdul Imam and Abid (2011:67) stress, *"other labels used are prior knowledge, background knowledge, and content familiarity...."* In terms of the TCF, \pm prior knowledge is studied through the degree learners are familiar with the topic, content, or type of a task. Since 'prior knowledge' can be used interchangeably with 'familiarity', this research paper uses "familiarity" instead of "prior knowledge".

¹) The plus indicates the presence of a dimension while the minus is the absence of it. In this study, the plus represents the familiar topic and a few number of elements while the minus refers to the unfamiliar topic and more number of elements respectively according to the TCF

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In order to gain a considerable insight into the effect of task complexity on FL performance, a new context of testing task complexity is set to explore the influence of +familiarity/-familiarity on syntactic and lexical complexity of advanced Iraqi learners' FL oral output. This study attempts to answer the following questions:

1. What are the effects of manipulating the cognitive task complexity along +familiarity/-familiarity on the oral output of Iraqi EFL learners as measured by syntactic complexity?
2. What are the effects of manipulating the cognitive task complexity along +familiarity/-familiarity on the oral output of Iraqi EFL learners as measured by lexical complexity?

2. Theoretical Framework

Considering the research on TBLT during the past four decades or so, one undeniably speculates on the increasing interest that occupies researchers all over this period principally in the discipline of second/foreign language teaching and learning. Before exploring the main principles of TBLT, it is important first to look at the meanings of *task* as defined in the literature. The aim behind this is to highlight how tasks came to be employed as central pedagogical units in the history of FL teaching and learning (Shehadeh and Coombe, 2012: 2).

2.1 Defining *task*

There are various definitions given to the term *task* in applied linguistics in general and in TBLT in particular. Some of these definitions are taken from a universal perspective, such as Long's (1985: 89, 2015:6) and Skehan's (1998:95). Others are taken from a pedagogical one, such as Crooke's (1986: 3), and Candlin's (1987:3). Sometimes a *task* is defined as "*a piece of work*" (Long, 1985: 89; Crooks, 1986: 3), as "*an activity*" (Crooks, 1986: 3; Willis, 1996: 23; Skehan, 1998: 95; Bygate, 2001: 11), a "*real-world activity*" (Long, 2015: 6) or according to its general everyday non-technical meaning as "*a piece of work undertaken for oneself or for others, freely or for some reward*" (Long, 1985:89). Long looks upon a task as anything people do in their daily life anytime and everywhere. Many years later, he (2015:6) modifies his definition of what *task* means stating that: "*Tasks are the real-world activities people think of when planning, conducting, or recalling their day.*" He demonstrates people's activities as "*brushing their teeth, preparing breakfast, reading a*

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newspaper, taking a child to school, responding to e-mail messages, making a sales call,..."

Notwithstanding the diversity of descriptions of tasks, the definitions of *task* show that they overlap given that there are some common aspects that all the definitions share. These aspects include a description of the nature of *task*, who performs it and the rationale behind using it. Additionally, there is a common understanding that *task* is an activity or goal that is carried out using language. In view of that, *task*, in the current study is looked upon as an activity that a learner carries out to achieve a goal set out by the researchers with emphasis on language use. It can be described as an exercise given to a learner to draw out a language outcome with the aid of a stimulus. The stimulus employed in this study is the pictures.

2.2 Task-Based Language Teaching

Task-Based Language Teaching (TBLT) represents an approach to language teaching and learning that regards tasks as the axis upon which instruction revolves. Its focal point is meaning; yet it does not overlook form. Consequently, it is distinguished from structural approaches that promote consistent teaching and deliberate learning (Ellis, Skehan, Li, Shintani, and Lambert, 2020: 1). It employs pedagogical tasks as central units within FL syllabus (Long and Crooks, 1992: 30; Long, 2015:6).

Thus, TBLT came out into sight to complement the communicative outlook and create a shift from traditional approaches of the mid twentieth century whose key concerns are behaviorism, discrete learning, the teacher-centered approach, and focus-on-form as the central form for language instruction (Samuda and Bygate, 2008:51). These approaches are recognized as being inadequate for most language teachers, researchers and educational intellectuals. Willis (1996:1), among others, supposes that TBLT is a reasonable growth of Communicative Language Teaching (CLT) as it echoes the principles of the CLT approach with a controlled focus on form. Such principles retain that activities based on communication are crucial for language learning, entail meaningful use of language, and enhance the learning process (Richards and Rodgers, 2001:223). Therefore, the emphasis began to shift to use and function utilizing tasks as practical media for applying these standards (Richards and Rodgers, 2001: 223).

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2.3 The Cognitive Approach to Task-Based Language Teaching

Although diverse approaches to TBLT have evolved over the course of the last few years, none of them has considered the cognitive dimension of *task* as a prominent feature of its design (Skehan and Foster, 2001:188-189). Approaches as such do not base their claims on effective theorizing framework, neither do they take attention nor task complexity and dimensions of performance into consideration (Skehan, 1998: 128). Promoters of information-theoretic approaches have often attempted to verify their promotion by appealing to recent theories in the fields of linguistics, psychology, and cognition. One of the most widespread information-theoretic approaches to TBLT upon which the theoretical ground of the current thesis is based on the cognitive approach (Skehan, 1998, 2014). This approach, as inspired by cognitive psychology and psycholinguistics, places more emphasis on the mental processes of L2 learners chiefly attention as the fundamental exposition to learning (Schmidt, 2001: 3) giving particular attention to the recent research into the mechanics of language processing Skehan (1998).

Significantly, the cognitive approach to TBLT has been generally referred to as *task complexity*. For more than two decades, the notion of task complexity, i.e., the cognitive demands of a task, has received considerable attention in the domains of TBLT and FLL (foreign language learning). It has been defined as “*the result of the attentional, memory, reasoning, and other information-processing demands imposed by the structure of the task on the language learner*” (Robinson, 2001b: 28). Mainly, two hypotheses have inspired most research on CAF in the last few years: the LAC Hypothesis (Skehan, 1998) and the CH (Robinson, 2001a).

2.3.1 The Limited Attentional Capacities Hypothesis

Skehan's hypothesis (LAC) assumes that resources of attention and memory capacity are limited and these limits confine some aspects of performance (Skehan, 2014:131). It lays emphasis on the belief that increasing the complexity of tasks “*consume more attentional resources...with the result that less attention is available for focus on form*” (Skehan, 1998: 97). Accordingly, FL learners cannot focus on form and meaning simultaneously but disperse their attention to either one. When a

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task demands more attention to its content, less attention will be directed to its form. In order that attention is allocated to language form to endorse TBLT, Skehan suggests designing tasks from less to more demanding to advance well-balanced language production and development especially in the areas of CAF.

2.3.2 The Cognition Hypothesis

On the contrary, Robinson's CH maintains that attention is not limited, but can expand according to task demands (Robinson, 2001a:35). Opposite to the LAC claim, the CH hypothesis principally presupposes that there are multiple attention resources of human cognitive capacity. The fundamental pedagogic argument of the CH is that FL tasks should be sequenced for learners according to increases in the cognitive complexity (Robinson, 2007:193).

To examine and operationalize the pedagogic implications of the CH, Robinson designed a taxonomic framework, the TCF, which involves a number of dimensions of task complexity that are expected to shape FL output. In this framework, Robinson distinguishes between the cognitive demands of tasks according to variations in: (a) Task Complexity, i.e., cognitive complexity of the task; (b) Task Difficulty, i.e., learners factors such as attitude, motivation, and anxiety; and (c) Task Condition, i.e., the condition under which a task has to be performed. Within the first group, i.e. task complexity, Robinson distinguishes between the resource-directing factors and the resource-depleting ones. The former direct the learners' attention to either form or meaning, while the latter disperse attention.

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**Table (1): A Triad of Task Complexity, Condition and Difficulty Factors
(Robinson, 2001a: 294)**

Task complexity	Task conditions	Task difficulty
(cognitive factors)	(interactive factors)	(learner factors)
a) resource-directing e.g., +/- few elements +/- here-and-now -/+ no reasoning demands	a) participation variables e.g., one-way/two-way convergent/divergent open/closed	a) affective variables e.g., motivation anxiety confidence
b) resource-depleting e.g., +/- planning +/- single task +/- prior knowledge	b) participant variables e.g., gender familiarity power/solidarity	b) ability variables e.g., aptitude proficiency intelligence

3. Models of Speech Processing

Due to the importance of speech in communication, it is not surprising in learning a foreign language that the speaking skill receives the greatest priority among other skills. As Yaqoob (2021:74) affirms "*speaking skills are among the most significant skills that language instructors try to develop.*" In order to develop the teaching of this skill, it is imperative to understand how speech is processed so that teachers become aware of any obstacles their learners confront, course designers be able to select appropriate material, and language examiners can develop tools that can measure oral language performance in a further valid means. Therefore, the current study presents two models: Levelt's (1989) and Kormos's (2006).

One of the most recognized models of L1 speech production is Levelt's (1989). Drawing on earlier psycholinguistic proposals (such as Garret's, 1975) and making use of abundant experimental data as well as observations of speech samples, Levelt (1989) has developed a unilingual blueprint of the L1 speech production. The model outlines a modular framework which involves three main autonomous information processing stages: the *Conceptualizer*, the *Formulator*, and the *Articulator*. In the first stage, the *Conceptualizer*, the concept of a message (preverbal message) is formed as an inner reflection of the initiation of interaction or "*communicative intention*" (Levelt, 1989: 107). The *Formulator* translates

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the conceptual message into a linguistic one by carrying out two types of encoding: grammatical and phonological encodings. In the *Articulator*, the internal speech is converted into overt speech. In Levelts' own terms, the articulator “*unfolds and executes the phonetic plan as a series of neuromuscular instructions*” (Levelt, 1989: 27). In Levelt's model, the three processing stages are controlled by a self-monitoring process.

However, several foreign language learning scholars (the first was de Bot, 1992, then Kormos, 2006) have attempted to adapt this model to FL speakers' production. In addition to the three knowledge stores that are presented by Levelt's model: knowledge of external and internal world store, the mental lexicon, and the syllabary store, Kormos (2006) puts forward “*one large memory store*” she calls “*long -term memory*” store with a number of subparts: episodic memory, semantic memory, the syllabary, and declarative knowledge of FL rules store (p.167). The episodic memory store consists of temporal events one goes through in life, while the semantic memory store includes linguistic and nonlinguistic concepts and the meanings related to these concepts. Semantic memory is hierarchically structured into three levels: a conceptual level, lemma, and lexeme level. The lemma level comprises syntactic information whereas the lexeme level has morpho-phonological information associated with lexical items.

Kormos assumes that all the knowledge stores she proposes are common in both of L1 and FL but urges the subsistence of one more FL knowledge store within bilingual speech model which is the declarative memory store for FL syntactic and phonological rules. What this store means is that FL speakers, unlike L1 ones, do not have automatic access to all grammatical, lexical, and phonological rules and thus store these rules as declarative knowledge.

4. Previous Studies

One of the important studies on increasing task complexity through +familiarity/-familiarity is Robinson's (2001b). Through a two-level (simple vs. complex) dialogic route map, Robinson examines the performance (CAF dimensions) of 22 Japanese EFL Learners by dividing them into information givers and information receivers of directions. The findings show that the complex task enriches lexical variety for the information givers and encourages cooperation by the information receivers. Robinson finds that the complex task results in higher lexical

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variety but lower fluency as the CH predicts, and no difference in accuracy and syntactic complexity. The same results are obtained by Levkina and Gilabert (2012) using advice-giving tasks about holiday destinations: the complex task (no pre-task planning time and many elements) has increased lexical complexity.

Rahimpour and Hazar (2007) have conducted a study to investigate the effect of topic familiarity on the complexity, accuracy and fluency of FL oral output. Twenty-two learners of English participate in the study. Each participant is provided with a familiar and an unfamiliar task ('family life' and 'success' respectively). Rahimpour and Hazar have implemented the measures used by Skehan and Foster (1999) and Foster and Skehan (1998) for measuring the complexity, accuracy and fluency. The researchers find that topic familiarity has a positive impact on the accuracy and fluency of the participants' oral performance, but a negative impact on complexity.

Bui (2014) examines the interaction between task-internal and task-external readiness through the effects of topic familiarity, strategic planning as task-internal readiness, and proficiency levels as task-external readiness. Eighty university students participate in the study. They belong to two groups: nursing majors and computer majors. Both groups are asked to give presentations on the processes of infection by a virus in a human body, and the infection by a virus in a computer. It is found that the participants produce longer sentence when presented with more the familiar task (the nursing majors are more familiar with the human virus topic, while the computer majors are more familiar with the computer virus topic and vice versa). Planning time has less effect on the length of sentences, though some significant effects are found with total pruned words which indicate that participants decrease repair aspects (hesitation, interjections,..etc), as opposed to breakdown fluency (e.g., speech rate and pausing) following strategic planning. This finding asserts that the increase in the number of words is more related to task familiarity than to planning time. As far as complexity is concerned, Bui maintains that topic familiarity does not affect any measures of complexity. On the other hand, planning has some significant effects on clauses per AS unit and words per AS unit. High proficient participants use longer AS units than less proficient participants.

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5. Methodology

This section presents the methodology followed in this study which includes information about the participants, the data collection, the procedures, and the analysis of results. It also presents a discussion of the results.

5.1 Participants

Fifty-two advanced Iraqi learners of English are selected for the present study on a voluntary basis. The participants are fourth-year students at the Dept of English/ College of Arts/ University of Basrah/ morning and evening studies for the academic year 2020- 2021. They are homogenous regarding their age, nationality, their L1, and FL background as manifest by a bill of information distributed to them. Their age range between 20-35. All of them are native speakers of Arabic learning English for more than 10 years. All of them live in the center of Basra and its outskirts. None of them have any speech or hearing defects. They are recruited online due to the quarantine conditions.

5.2 Data Collection

The process of data collection includes a bill of information, a familiarity questionnaire, and finally a test of cognitive task complexity. The questions in the bill of information (see Appendix 1) elicit biodata such as participants' names, gender, e-mail addresses, mobile numbers, places of residence, and nationality. The FL language background questions refer to the participants' FL history. To obtain objectivity in choosing the most familiar/unfamiliar topics for investigation, the present researchers have designed a questionnaire of topic familiarity in which a number of topics are randomly selected and the participants are required to rate the topics according to their degree of familiarity to them (see Appendix 2).

The last part of data collection includes the cognitive task complexity test (see appendix 3) which is also carried out online on Zoom meeting. This test consists of two oral tasks that are divided into two groups. Each task consists of six pictures on a particular topic. The first task is on *coronavirus pandemic* which is supposed to be the totally familiar topic

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according to the familiarity questionnaire, whereas the unfamiliar topic is *the Kremlin* as the participants have already rated it.

5.3 Procedures

To achieve the objective of this study, two different tasks of cognitive complexity are attained along with manipulating two levels, simple and complex. The simple task is the familiar topic, *coronavirus pandemic* and the complex task is *the Kremlin*. Degree of familiarity/unfamiliarity is determined by a questionnaire distributed to the participants in order to rate their familiar to unfamiliar tasks among ten other topics. The group of participants who are advanced Iraqi learners of English are asked to perform these two tasks orally and individually in English by describing a number of pictures on Zoom meetings. The data are recorded, transcribed, coded and analyzed by CLAN software and, also, manually. To analyse the data statistically, paired-samples t-tests are used to detect any statistically significant differences between the two tasks.

The basic unit of analyzing speech in this study is the AS-unit because it is approved by many researchers within TBLT (Foster et al., 2000; Gilabert, 2004, 2007; Malicka, 20014; Awad, 2017) as the most suitable measure for spoken language. Foster et al. (2000: 365) define it as "*a single speaker's utterance consisting of an independent clause, or sub-clausal unit, together with any subordinate clause(s) associated with either.*" They have explained that an independent clause has at least one finite verb, and a sub-clausal unit contains "*either one or more phrases which can be elaborated to a full clause by means of recovery of ellipsed elements from the context of the discourse or situation*" (p.366).

6. Linguistic Complexity as a Measure of FL Oral Output

In this study, only one dimension of CAF, linguistic complexity, is selected. The other two measures, accuracy and fluency, are beyond the scope of the present study. Linguistic complexity refers to the ability of learners to produce more detailed language. Citing Skehan (2001), Ellis and Barkhuisen (2005: 139) state that the former relates two meanings for a language to be complex. The first meaning concerns learners' use of language that is higher than their automated interlanguage system and thus can be considered more complex than already internalized system. Second, a learner's language is considered complex because of his/her readiness to use various language structures. Skehan and Foster (1999:96) define

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complexity as " *the capacity to use more advanced language,*" with " *a greater willingness to take risks*" and " *change and development in the interlanguage system*". Complexity can be syntactic or lexical.

Following earlier studies on CAF (e.g., Robinson, 2001b; Norris and Ortega, 2009; Rahimi, 2016), syntactic (structural) complexity is measured by ratio of subordination, counted by the number of clauses divided by the number of AS-units) and MLU (mean length of AS-units, calculated by ratio of morphemes over AS-units) (Skehan, 2009). Subordination is a practical index of syntactic complexity at an intermediate proficiency levels (Norris and Ortega, 2009). The MLU is calculated by CLAN software, while the former is done manually. The MLU measures the number of clauses per AS-unit, words per AS-unit, and words per clause.

Lexical complexity refers to the diverse use of lexical words in an utterance. It is measured by *VocD* (vocabulary diversity) program generated by CLAN. The *VocD* analyzes data into types (NDW, number of different words), tokens (word count), TTR (type-token ratio), D- value and the average optimum D. Above all, D provides an indication of the degree of words' repetition in a text; the fewer words are repeated the- the more different words that are used in the text- the higher score for D.

7. Results

The two questions addressed in this study are concerned with inquiring about the effects of manipulating the cognitive task complexity along (+familiarity/-familiarity) on the oral output of Iraqi EFL learners as measured by syntactic and lexical complexity. To begin with, this study has made a comparison/contrast between a familiar topic (+familiarity) and an unfamiliar topic (–familiarity) tasks to explore how increasing task complexity may influence measures of syntactic complexity. Five measures of syntactic complexity are calculated. In order to examine whether these measures differed significantly between tasks, the researchers have compared/contrasted the results for the two groups. Table (3) points up that all measures of syntactic complexity indicate substantial increases in the mean values on the complex task – familiarity. To exemplify, the number of clauses has increased on the complex task (*Mean*=17.13) in comparison to the simple task (*Mean*=14.69) indicating a significant difference (*p*-value= .000) at $p>0.05$. In addition, even though the two levels of task complexity are parallel in the ratio of subordination (*Mean*=1.33) no statistically

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significant difference is detected (p -value= .362). Contradictorily, the number of AS-units is higher ($Mean=12.89$) on the complex task than it is on the simple ($Mean=11.13$) with a significant difference (p -value=0.000) between the two tasks. The participants have produced more As-units in performing the complex task. Regarding the number of morphemes and the mean length of AS-units, this study reports higher mean values for the complex task over its counterpart leading to statistically significant differences between +familiarity and -familiarity as table (3) clarifies.

Table (2): Paired-Sample T-Test of the Effect of +Familiarity/-Unfamiliarity on Complexity

Dimension	Sub-dimension	Task complexity	N	Mean	Std. Deviation	P-value
Syntactic Complexity	Number of clauses	+familiarity	99	14.69	7.037	.000
		-familiarity		17.13	9.494	
	Number of AS-units	+familiarity	99	11.13	5.279	.000
		-familiarity		12.89	6.716	
	Ratio of subordination	+familiarity	99	1.33456	.297379	.362
		-familiarity		1.33426	.261825	
	Morphemes	+familiarity	99	73.91	46.650	.007
		-familiarity		93.89	58.941	
Lexical complexity	D-optimum	+familiarity	99	27.2301	10.00724	.000
		-familiarity	99	15.5958	14.16015	

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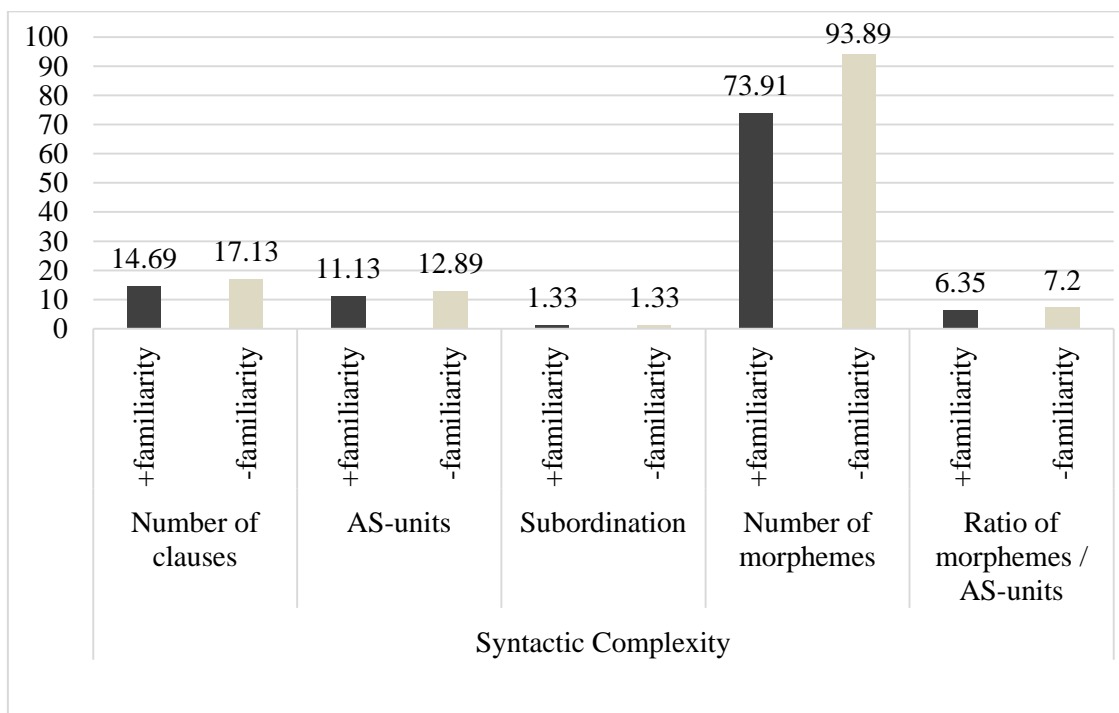


Figure (1): Means of Syntactic Complexity along +Familiarity/-Familiarity

The variation in the mean values of the five measures of syntactic complexity on the simple task (coronavirus pandemic) +familiarity and the complex task (the Kremlin) -familiarity is shown in figure (1). The complex task overvalues the simple task in four measures, except the ratio of subordination which is not affected by increasing task complexity.

The other measure of linguistic complexity in this study is lexical complexity calculated by the *D*-value by CLAN software. Table (3) shows the *t*-test analysis of these two measures. It seems that the simple task +familiarity has generated higher *D*-value (*Mean*= ۲۷.۲۳) to the opposite of the complex task (*Mean*= 15.59). The *D* measure of lexical complexity has demonstrated significant differences between the two tasks.

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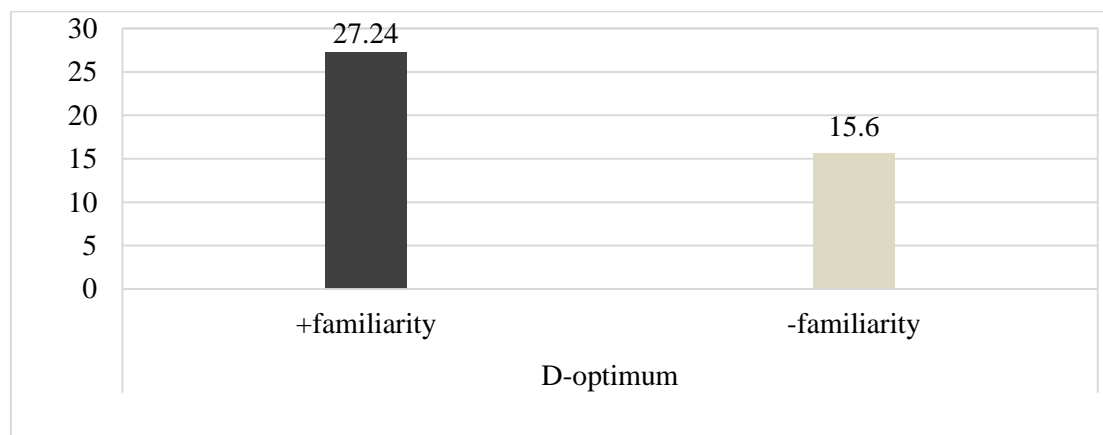


Figure (2): Means of Lexical Complexity Along +Familiarity/-Familiarity

As shown in figure (2), lexical complexity is higher on the simple task than on the complex as the variation in the D-value indicates. The latter is higher on the simple task.

8. Discussion

The two questions raised correlate with whether or not familiarity/unfamiliarity of topics shows any effects on the oral FL output of advanced Iraqi EFL learners. Results of analyzing the data in terms of +familiarity/-familiarity obviously demonstrate that the sub-measures of CAF vary in significance with increasing task complexity. To illustrate, the ratio of subordination has not been influenced by task complexity as it is reported with a value that is analogous in both tasks with no statistically significant differences between them. Other measures reveal that task complexity has positive effects on syntactic complexity as the complex task has more values than the simple. It appears that the unfamiliarity of topic has moderately required attentional resources on the part of the participants that the outcome neither supports nor refute the two hypotheses: LAC and the CH. Tavakoli and Skehan (2005:239) claim that drawing on prior knowledge (familiarity of information) generates accurate and fluent output but not complex. The present study assumes that the results partially support Tavakoli and Skehan (2005) since not all measures have shown significant differences between the two tasks. Unpredictably, the other measures of syntactic complexity significantly contrast for the advantage of the complex task.

The finding of analyzing lexical complexity (use of different word types), on the other hand, has shown that the participants' oral output is less lexically diverse in the complex task a result that confirms no effect of

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increasing task complexity on lexical complexity just as contrary to what is predicted by the CH. This study justifies these findings by reckoning that increasing task complexity through the unfamiliar task disperse the participants' attention to meaning while centering their attention on form. With reference to Levelt's model, Skehan explains that the mental lexicon in a FL is "*smaller...incomplete...less organized...and less redundantly structured*" (Skehan, 2009: 204) as contrary to L1 mental lexicon which is "*extensive, elaborate, analysed and accessible*" (Skehan, 2009: 206). Therefore, FL learners confront a lot of difficulties at the Formulator level as opposed to their performance in L1 which is characterized by a smooth processing. Such a processing is not easily hold in FL especially for low proficient learners whose speech mechanism is interrupted by slow and conscious mapping due to limited linguistic knowledge that requires more attentional capacities (Kormos, 2006, as cited in Skehan, 2009:206).

Another explanation to the decrease of the *D*-optimum value, as an index of lexical diversity, on the complex task is that the latter requires higher ratio of types over tokens as the participants confront an unfamiliar topic which necessitates new words and vocabularies. Unlike the complex task, on the simple (familiar) task the participants could describe a familiar experience (*coronavirus pandemic*) that they have had prior knowledge about reusing tokens more than types. In the simple task, familiarity with the topic has pushed the participants to using more diverse language but providing lower subordination. As long as lexical complexity and most of the other measures of syntactic complexity have been statistically significant, the findings of the present thesis partially lend support to the predictions of the CH that task complexity is likely to increase the complexity of FL output. These predictions are affirmed by four measures of syntactic complexity but disapproved by lexical complexity.

The findings of this study contradicts Robinson's (2001) which has found that the complex task resulted in higher lexical variety. Moreover, the findings of the current study lend support to Rahimpour and Hazar (2007) concerning low syntactic complexity and lexical complexity.

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9. Conclusion

This study attempts to investigate the effect of topic familiarity on the FL oral output of a group of advanced Iraqi EFL learners. It has employed two oral tasks in order to elicit spontaneous talk in FL by the participants. The study follows a quantitative data analysis to measure the participants' output with increasing task complexity on two levels, simple (familiar) and complex(unfamiliar). The conclusion that can be drawn is that task complexity has partially affected the participants' performance, in the sense that not all measures of syntactic complexity are positively affected by task complexity. Increasing task complexity through integrating an unfamiliar task has triggered significant differences in most of syntactic complexity sub-measures. Only the ratio of subordination, which is a significant index of syntactic complexity, does not show any effect by task complexity and no significant difference between the two tasks. Lexical complexity has not been positively affected by task complexity. The study concludes that the participants have used less advanced complex syntactic structures on both tasks utilizing their existing interlanguage system. In addition, lexical complexity has not been influenced by task complexity.

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Appendix 1

Bill of Information

Personal information, language background and open questions

1- Name

2-Age

3- Sex

Mark only one oval.

Female

Male

4- Mobile number

5- e-mail

6- Nationality

7- Country of birth

8-Permanent residence

9- Profession (if any)

10- Native language

11- Foreign language(s)

اللغة الاجنبية (او اللغات الاجنبية)

12-Parents' native language

a. mother's native language

b.father's native language

13- Other languages spoken at home

14- At what age did you start learning English?

15. How long have you been studying English?

16- . How did you learn English up to this moment? (mark all that apply)

Mark only one oval.

Mainly through formal classroom instruction

Mainly through interacting with people

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A mixture of both

Other: _____

17- Do you use English frequently? In which contexts? (mark all that apply)

Mark only one oval.

At home

At college

With friends

On social media

In all the above contexts

18- . Have you been to an English speaking country? If yes, where and for how long (duration in months/years)

الرجاء كتابة اسم البلد ومدة بقاءك فيه بالشهر (yes) هل سبق لك زيارة اي بلد ناطق باللغة الانجليزية؟ اذا اجبت ب والسنة

Yes

No

19- Have you taken extra courses in English ?

Yes

No

20- Have you studied English with a private tutor? .

Yes

No

Maybe

21- In which language (your native or foreign language) do you feel you usually do better *

22- Do you have any speech and/or hearing defect *

هل تعاني من عيوب في النطق و (او) الاستماع؟

.

Yes

No

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Appendix 2 Questionnaire of Topic Familiarity

Dear participant,




You are kindly requested to participate in a questionnaire related to a Ph.D. thesis entitled: "The Effect of Topic Familiarity on the Complexity, Accuracy and Fluency of Oral Output as Performed by Advanced EFL Iraqi Learners. " Your answers will be strictly confidential, and will be used only for academic research purposes . Please tick the appropriate rating- according to your background knowledge- opposite each topic by choosing one of the following scale items: **totally familiar, familiar, unfamiliar, and totally unfamiliar.**

Topics	Scales of Rating			
	<i>Totally familiar</i>	<i>familiar</i>	<i>unfamiliar</i>	<i>Totally unfamiliar</i>
1. Vitamins				
2. E- learning				
3. Healthy Diet				
4. Harry Potter				
5. The University Campus				
6. Corona Pandemic (Covid 19)				
7. The Hilton Hotel				
8. Nelson Mandela				
9. Swine Flue				
10. The Kremlin				

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Appendix 3 Cognitive Task Complexity Test

Task 1

<p>Pictures No.1</p> 	<p>Pictures No.2</p> 
<p>Pictures No.3</p> 	<p>Pictures No.4</p> 

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Pictures No.5



Pictures No.6



Task 2

Pictures No.1

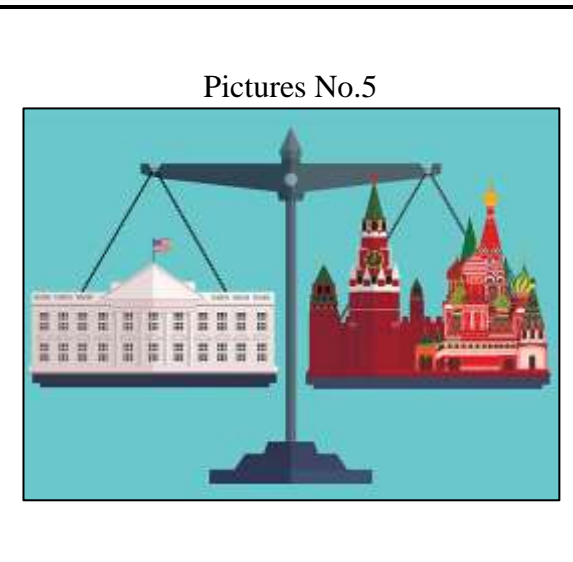
The Kremlin




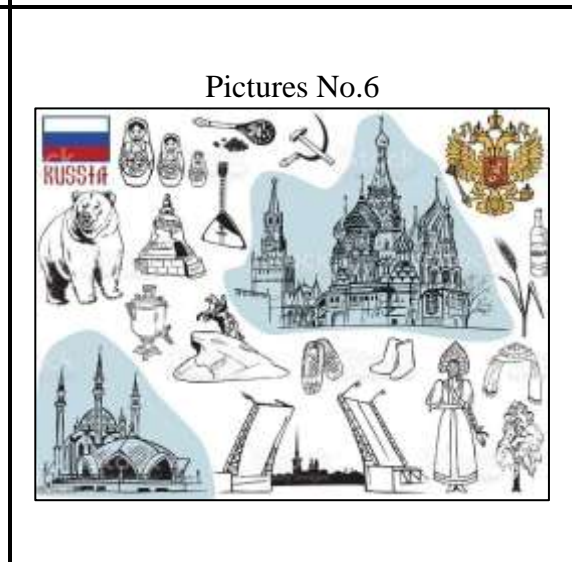
Pictures No.2




Pictures No.3

A photograph of Vladimir Putin, the President of Russia, speaking at a podium. He is wearing a dark suit, a white shirt, and a purple tie. He is looking down at a document on the podium. There are two microphones in front of him. The background is a blue screen with large, white, stylized letters, possibly 'N' and 'U'.

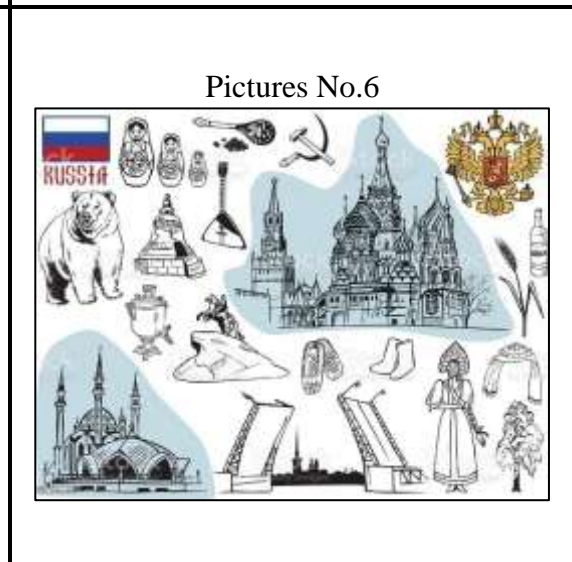
Pictures No.4

A wide-angle photograph of a large, ornate conference room. A long, U-shaped table is surrounded by many people seated in chairs. The room has high ceilings with chandeliers and large windows. The table is covered with a white cloth, and there are papers and water bottles on it. The room is decorated with classical architectural elements.

Pictures No.5



A balance scale is shown against a light blue background. The scale is tilted, with the left pan resting lower than the right pan. The left pan contains a white model of the White House with a small American flag on top. The right pan contains a red and white model of the Moscow Kremlin with its characteristic onion domes. The scale's beam is dark grey, and its base is also dark grey.

[illegible]