Role of EFL learners' perceptions of task difficulty in complexity, accuracy and fluency: An exploratory case study

Edgar Emmanuell García-Ponce
ORCID: 0000-0002-5414-3862
Irasema Mora-Pablo
ORCID: 0000-0001-8532-5522
Juan Gabriel Segovia-Hernández
ORCID: 0000-0003-4175-9809
Universidad de Guanajuato (México)

ABSTRACT: This paper presents an investigation conducted in a public university in central Mexico into the possible influence of learners' perceptions of task difficulty (TD) on levels of complexity, accuracy and fluency (CAF) during the performance of three tasks (personal information, narrative and decision-making tasks). Firstly, four learner pairs performed the three tasks, and their levels of CAF were measured. Secondly, the participants were interviewed retrospectively about which tasks they perceived as difficult and their reasons for such perceived difficulty. In combining the quantitative and qualitative analyses, the data reveal that task difficulty increases when a task is perceived not to be familiar by the learner. The relationship between task difficulty and familiarity also appears to influence the levels of CAF, promoting high levels of fluency and accuracy when the task is perceived by the learner as easy and familiar. The findings of this study provide support for a cognitive approach to task-based language learning and put forward the need to include learners' perceptions of TD as a variable to investigate the relationship between tasks and the CAF dimensions.
Keywords: accuracy, complexity, fluency, task difficulty, task familiarity

Rol de las percepciones de los estudiantes sobre la dificultad de tareas en la complejidad, precisión y fluidez: Un estudio de caso exploratorio

RESUMEN: Este artículo presenta una investigación llevada a cabo en una universidad pública en el centro de México sobre la posible influencia de las percepciones de los estudiantes sobre la dificultad de las tareas en la complejidad, precisión y fluidez (CPF) durante el desarrollo de tres tareas (tareas de información personal, narrativas y de negociación). En primer lugar, cuatro parejas de estudiantes realizaron las tres tareas y sus niveles de CPF fueron medidos. En segundo lugar, se realizaron entrevistas retrospectivas para examinar qué tareas fueron percibidas como difíciles y los factores que influyeron sobre estas percepciones. Al combinar datos cuantitativos y cualitativos, los resultados muestran que la dificultad de las

tareas se incrementa cuando la tarea no es familiar para los estudiantes. La relación entre la dificultad de las tareas y la familiaridad también influye en los niveles de CPF, promoviendo niveles altos de fluidez y precisión cuando la tarea es percibida como fácil y familiar. Los resultados de este estudio apoyan el enfoque cognitivo para el aprendizaje basado en tareas y muestran la necesidad de incluir las percepciones de los estudiantes sobre la dificultad de las tareas como una variable para investigar la relación entre las tareas y las dimensiones de CPF.

Palabras clave: precisión, complejidad, fluidez, dificultad de la tarea, familiaridad de la tarea.

1. INTRODUCTION

Tasks are useful materials to learn foreign languages since they promote a creative and communicative use of language (Prabhu, 1987). Thus, there has been a surge of interest in exploring the relationship between task design and learners' oral performance. To do this, researchers have investigated the levels and interactions between complexity, accuracy and fluency (henceforth CAF) in task performance (Larsen-Freeman, 2009; Skehan & Foster, 2008). For decades, research evidence has shown that the design of tasks considerably shapes learners' CAF (see, for example, Tavakoli & Skehan, 2005). Until recently, task performance and the CAF triad have been mostly examined in experimental conditions to "generalise findings of the mental mechanisms involved in language information processing, storage, and retrieval" (García-Ponce et al., 2018)[1], p.76). However, these controlled conditions may not actually reflect the practices that are commonly carried out in English as a Foreign Language (EFL) classrooms. Moreover, to continue developing a practical understanding of the interplay between tasks and learners' CAF, it is crucial to explore task difficulty (TD) in particular contexts. In previous research, the focus has been to determine TD through learners' oral performance on tasks (Foster & Skehan, 1996; Robinson, 2001). However, the extent to which learners' perceptions of TD may influence the CAF dimensions has not been fully investigated. In response to this, Tavakoli (2009) calls for studies which investigate how learners perceive TD and what factors may contribute to their perceptions. She goes further to suggest that "such an insider perspective will broaden the current understandings of TD and will assist language educators in designing and employing more effective materials" (p.2).

In response to the above limitations and Tavakoli's (2009) call, the investigation presented here has three objectives. It first examines the CAF levels of four learner pairs in three tasks

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[1] The Author's (2018) study was conducted in the context where this study took place. The objective of this previous study was to explore the effects of personal information, narrative and negotiation tasks on CAF levels during pair interactions in two uncontrolled English as a Foreign Language (EFL) classrooms. Their results indicated that the complexity, accuracy and fluency dimensions cannot be promoted equally during the performance of the three tasks. They suggested that learners' agency plays a significant role in approaching the tasks and thus their performance as evident in the three areas. However, in this previous study, they failed to explore the impact of learners' perceptions of task difficulty which we argue is necessary to understand the interaction of CAF .

(personal information, narrative and decision-making tasks), whose design and effectiveness have been previously investigated in research (see Foster & Skehan, 1996). Secondly, it explores the learners' perceptions around TD in the performance of the three tasks. Finally, in combining these data, it attempts to understand the extent to which their perceptions of TD shape their oral performance as captured by the CAF dimensions.

2. LITERATURE REVIEW

2.1. Tasks and the CAF dimensions

In research, it has been suggested that language performance is dynamic (Larsen-Freeman, 2009). That is, there is an array of factors which dynamically influence L2 performance. These factors can be cognitive, instructional and interactional in nature. According to Larsen-Freeman (2009), the dynamism of L2 performance is effectively captured by the CAF constructs. In this study, CAF are defined as follows:

1. Complexity is the extent to which L2 (oral) production reflects grammatically complex and advanced structures (Richards, 2015; Skehan, 2009).
2. Accuracy is viewed as "the ability to produce target language that is free of grammatical and other errors" (Richards, 2015, p. 730).
3. Fluency is defined as "the extent to which target language production is continuous, without causing comprehension difficulties or a breakdown of communication" (Richards, 2015, p. 738).

The dynamism of L2 performance is evident when learners engage to perform tasks because of the demands of these instructional materials and the cognitive processes necessary to carry them out. For example, during task performance, learners have been found to direct their attention to certain CAF dimensions, but not to the three simultaneously (see, for example, The Author, 2018; Tavakoli & Foster, 2008). According to Skehan (1998), the inability to promote CAF simultaneously is motivated by their limited attentional capacity systems. Because of their limited attentional capacities, learners have to prioritise certain language aspects (Skehan, 1998).

To date, the findings in the research literature represent a timely attempt to understand the interplay between task design and the CAF dimensions. However, because of their attempt to control the context and learner-related variables (age, motivation, proficiency, etc.), these studies have yielded findings which might not be significant for language classrooms because their results may have been influenced to such an extent that task and language performance may be different from what actually happens in language classrooms (see, for example, Foster & Skehan, 1996; Robinson, 2001). In response to this, we explore in this study the possible influence of learners' perceptions of TD on levels of CAF during the performance of three tasks.

2.2. Perceptions of Task Difficulty

Task difficulty (TD) can be defined in several ways. Here, we define TD as how much effort (amount of cognitive or physical effort) an activity requires for a personally demanding situation in order to develop learners' knowledge or skills (Van Velsor & McCauley, 2004). In research, several frameworks have been put forward to determine TD. In this study, we follow Skehan's (1998) framework of TD, which includes the following criteria:

- Code complexity. This dimension involves linguistic complexity, vocabulary load and redundancy and density.
- Communicative stress. This relates to time limits and pressures, speed, number of participants.
- Cognitive familiarity. This is determined by the learners' familiarity of topic, discourse and task which allow them to access solutions to perform tasks and attain their goal.
- Cognitive processing. This criterion relates to the information input that tasks provide and skills to process it, e.g., type of information, organisation of information, and clarity and sufficiency of information. This processing focuses on the need to find out solutions to new problems.
- The analysis of the interactional data and perceptual data draws on these criteria 1) to understand the factors that the learners perceived to increase/reduce TD in the three tasks, and 2) to explore the likely influence of TD on learners' oral performance, as captured by levels of CAF.

In previous studies, learners' perceptions of TD have been investigated with different objectives. For example, Tavakoli (2009) investigated ten learners' and ten teachers' perceptions of TD and its criteria in an English -as second language- context. The learners carried out four narrative tasks and, then, they were interviewed to explore the factors that affected their perceived difficulty. The teachers were asked to verbalise their perceived difficulty of the tasks and the factors that affected it. Her findings suggested that the teachers and learners had similar perceptions of the factors that had an impact on their perceived difficulty. Li, Lee and Solmon (2007) investigated the interplay between TD and 79 learners' self-perceptions of ability, intrinsic value, attainment value, and performance. They found that the participants who perceived a task as difficult tended to have self-perceptions of low levels of ability and interest, and obtain lower levels of performance scores on the skill test than their counterparts. Despite the fact that there is research evidence on teachers' and learners' perceptions of TD, Tavakoli (2009) claims that these perceptual factors have not received much attention in research into TD. Tavakoli (2009) contends that a full examination of how learners perceive TD and of the factors that motivate these perceptions is necessary because "such an insider perspective will broaden the current understandings of TD and will assist language educators in designing and employing more effective language teaching materials" (p.2). According to Mangos and Steele-Johnson (2001), evidence on perceptions on the difficulty of a task is highly important to facilitate learning, especially when learners are developing a new skill or are unfamiliar with the task.

Therefore, the present study draws on interactional data from three tasks which were performed in pairs and perceptual data from interviews to understand the extent to which learners' perceptions of TD shaped their oral performance as captured by the CAF dimensions. Three research questions guide the study:

> RQ1 What are the complexity, accuracy and fluency levels in the personal information, narrative and decision-making tasks?
> RQ2 What are the factors perceived by the learners that affect task difficulty?
> RQ3 What is the likely influence of the learners' perceptions of task difficulty on the levels of complexity, accuracy and fluency across the three tasks?

3. The study

We describe the approach to the study as exploratory and naturalistic. That is, it firstly explores the possible influence of learners' perceptions of TD on their CAF levels and, secondly, these explorations are conducted in the learners' language classroom trying not to modify the usual dynamics of language teaching and learning in their contexts, thus, remaining as natural as possible. This exploratory and naturalistic approach allowed us to make sense of the learners' L2 language performance and the possible influence of their perceptions of TD during uncontrolled interactions in the EFL classroom.

3.1. Research context and participants

The present study was conducted in the Language Department at a state university in central Mexico. Specifically, this study took place in an English course at an intermediate-advanced level. Classes were five hours a week and were focused on teaching the four basic language skills, grammar and vocabulary.

The participants of the study were eight EFL learners; two male learners and eight female learners. The participants' age ranged from 20 to 35 years old. The learners were studying BA and BSc programmes of different disciplines at the moment of the study. They were highly motivated learners because the completion of the English course was a required to graduate from the different programmes that they were studying in this context. Even though the learners were enrolled in a course at an intermediate-advanced level, their proficiency level was considered to be B1 (according to the Common European Framework of References for Languages). In order to ensure the study was conducted ethically, we informed the learner participants of the project and their participation, and how the data were to be collected and analysed. We provided them with a letter of informed consent, and we ensured that they were anonymised in the data analysis and discussions.

3.2. The tasks and CAF measures

The three tasks used in this study were a personal information task, a narrative task and a decision-making task. These tasks were included in the present study because, according to the teacher of the English course, they are similar to those tasks which are frequently used to practise speaking in this context and evaluate the learners' performance at the end of the semester. Moreover, the design characteristics of the three tasks have been used in previous studies to explore the interaction of CAF (e.g., Foster & Skehan, 1996; García-Ponce, E. E., Mora-Pablo, I., Lengeling, M. M., & Crawford, T. (2018). Drawing on the claim that learners participate more actively in pairs than in groups (Tavakoli & Foster, 2008), the three tasks were performed in pairs.

Audio recordings were made of four pair interactions during the three tasks. We asked the teacher to explain and administer the three tasks under exploration so as not to influence the classroom practices and behaviour. In an attempt to determine the difficulty of these tasks, we asked the teacher to classify the tasks according to their difficulty. The descriptions of the tasks are as follows:

Personal information task. In this task, the learners had to interview each other using cards which contained personal questions (e.g., how do you like to spend your holiday? what's your favourite day of the week? What are you going to do this weekend? Why is English useful or important to you?). The teacher classified the task as easy because she claimed that the learners would be using information that they already knew. In line with Foster and Skehan (1996), this task design is normally believed to be easy because it promotes the exchange of information which may have been previously rehearsed by learners involving the fewest cognitive demands and thus releasing attentional resources.

Narrative task. For this task, the learners had to collaboratively narrate a story following six images which followed a clear sequence of two boys getting caught in the rain and looking for shelter at an abandoned and haunted house. Using these sequential images, the learners needed to create a story orally without the aid of any text. The teacher classified this task as difficult because the learners would have to interpret images and communicate their ideas simultaneously. In research literature, this kind of task design has been categorised as difficult because several cognitive processes have to be initiated to perform the task at hand and attain its goal (Robinson, 2001).

Decision-making task. For this task, following the question: "What are the young people in the pictures doing?", the learners were asked to describe six pictures showing teenagers doing different activities. After that, they had to negotiate the interpretation of the pictures and select the most representative activity which they

think young people do nowadays. This task was also considered as difficult by the teacher because the learners first had to describe the pictures and then engage in an interaction to decide one choice among the pictures.

In total, we recorded ten minutes for each task (120 minutes in total). The 120 minutes were transcribed completely. The transcribed oral constructions were segmented into words, clauses, and AS-units (Analysis of Speech units) for analysis. To measure the levels of CAF, we used the following calculations:

- Complexity. We calculated clauses per AS-units produced by each pair.
- Accuracy. We calculated the total number of error-free clauses per the total number of clauses in each pair.
- Fluency. We calculated the total number of words produced in each pair per the total number of minutes. The reason behind our choice of this measure is that it reflects speed of performance and the degree of automaticity in language performance (Foster, 2020; Tavakoli, 2019).

Based on the ratios and percentages obtained from the measures, conventional statistical techniques were used to calculate algebraic averages to compare each one of the CAF dimensions across the three tasks. For a better numerical analysis, the algebraic averages were plotted in Excel and put into graphs to analyse and compare the trends found in the interactional data.

3.3. Interviews

In order to obtain insights into the participants' perceptions of the difficulty of the three tasks, we conducted retrospective interviews with the four learner pairs, after the recorded pair interactions. The interviews were conducted in Spanish because we observed that the use of English was a limitation to the flow of communication, as learners appeared to be focused on the accuracy rather than on the content of their responses. Mackey and Gass (2005) suggest that the use of the L2 for collecting elicited data may yield inaccurate or incomplete understandings, due to the complex demands of describing teacher- and learner-internal (e.g., perceptions) and external (e.g., interactional behaviour) phenomena. Therefore, we decided that the L1 (Spanish) would be used during the interviews in order to facilitate the provision of information, and thus gain clearer insights. The interviews consisted of ten questions (see Appendix I). Each interview lasted from 15 to 20 minutes. They were audio recorded, transcribed entirely, and translated into English by a native speaker.

In order to analyse the data, we conducted a thematic analysis. Firstly, we identified those extracts in which the learners appeared to be voicing information about their perceptions concerning task difficulty, familiarity and complexity. Secondly, we designed a matrix in which these extracts were listed. Finally, on this matrix, we then identified instances which alluded to the potential impact of these factors on their interactional behaviour as evidenced in the levels of CAF.

4. DATA ANALYSIS: THE CAF DIMENSIONS

To answer RQ1, this section presents the CAF levels in the three tasks. For the sake of finding trends of CAF across the three tasks, the figures are grouped and discussed for each language dimension.

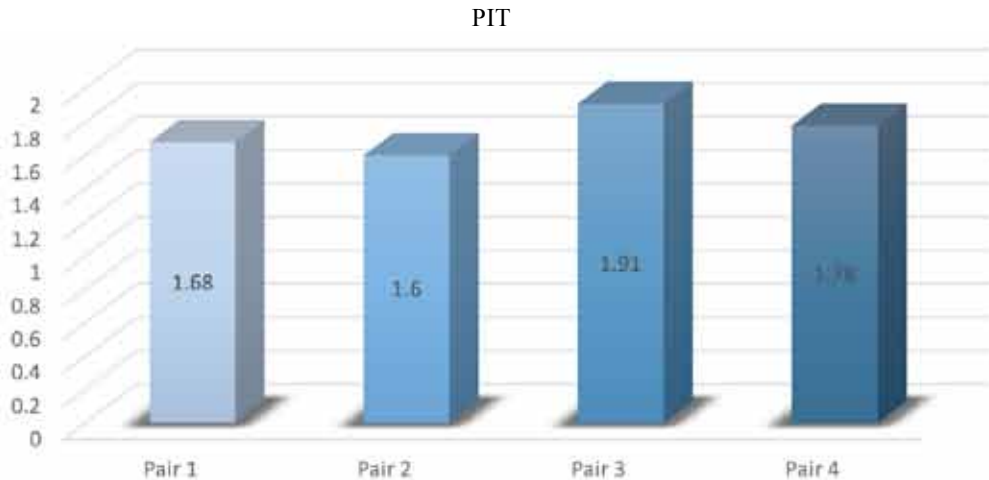Figures 1-3 summarise the levels of fluency in the three tasks across the four pairs.

PIT

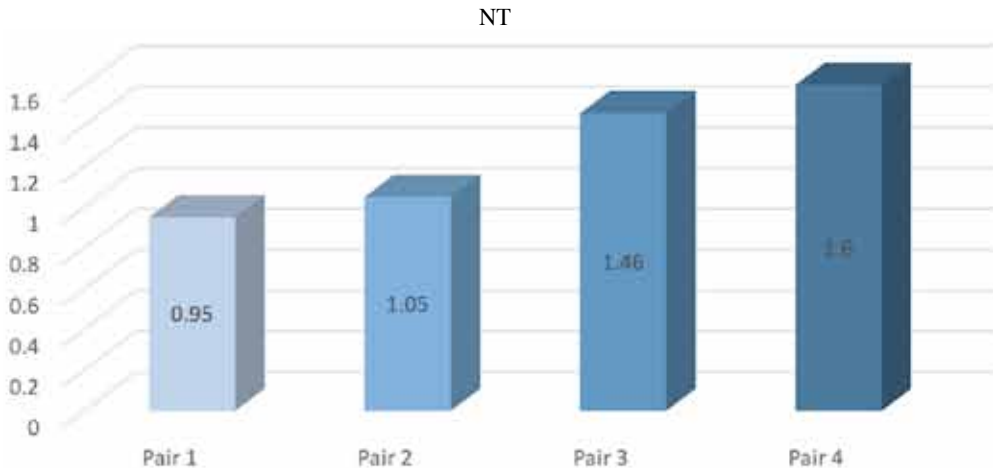*Figure 1. Fluency levels of the pairs during the personal information task.*

NT

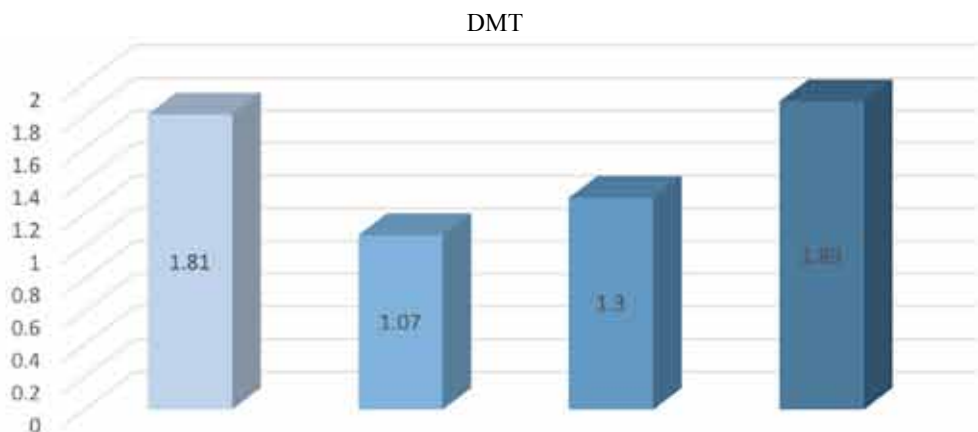*Figure 2. Fluency levels of the pairs during the narrative*

DMT

Figure 3. Fluency levels of the pairs during the decision-making task.

As can be seen in Figures 1-3, there was a significant fluctuation in the four pairs' fluency levels across the three tasks. If we compare the averages of fluency levels in the three tasks, it is possible to see a general pattern of higher fluency levels in the personal information task than in the narrative and decision-making tasks. As discussed below, the interactional evidence suggests that not only did fluency tend to be promoted during the personal information task but also accuracy. What is also interesting in Figures 1 and 3 is the slight increase of fluency in Pairs 1 and 4 during the decision-making task. This intriguing result could possibly be attributed to the fact that during task performance not only the characteristics of tasks play a role but also the learners' perceptions of TD which appeared to be shaped by the degree of familiarity they have with the tasks and their previous learning experiences practising the target language in their classroom.

In relation to the complexity levels across the three tasks, Figures 4, 5 and 6 show the results of the four pairs.
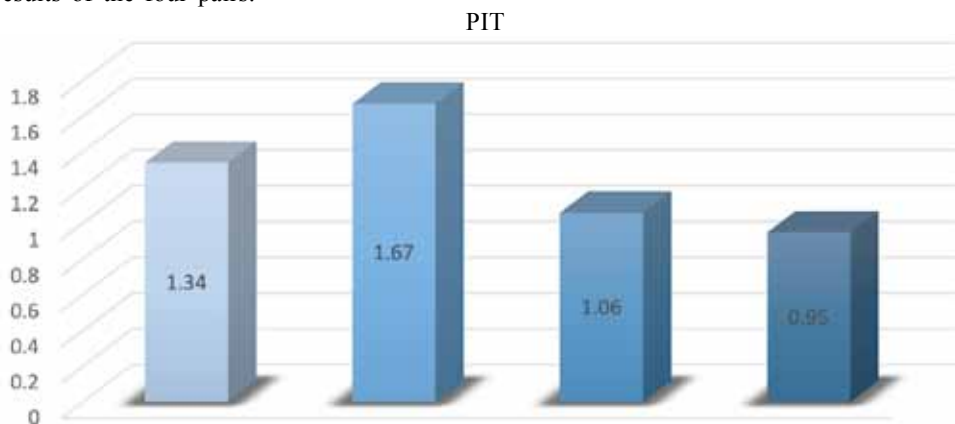
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Figure 4. Complexity levels of the pairs during the personal information task.
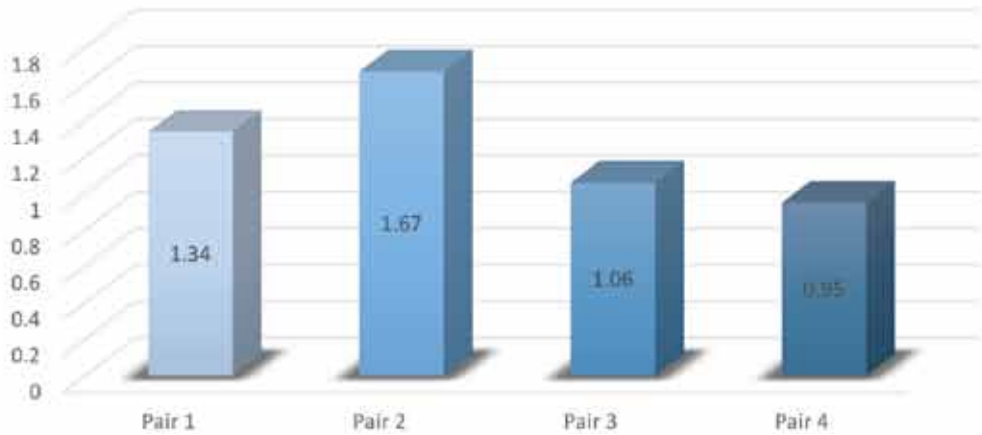
PIT

Figure 5. Complexity levels of the pairs during the narrative task.
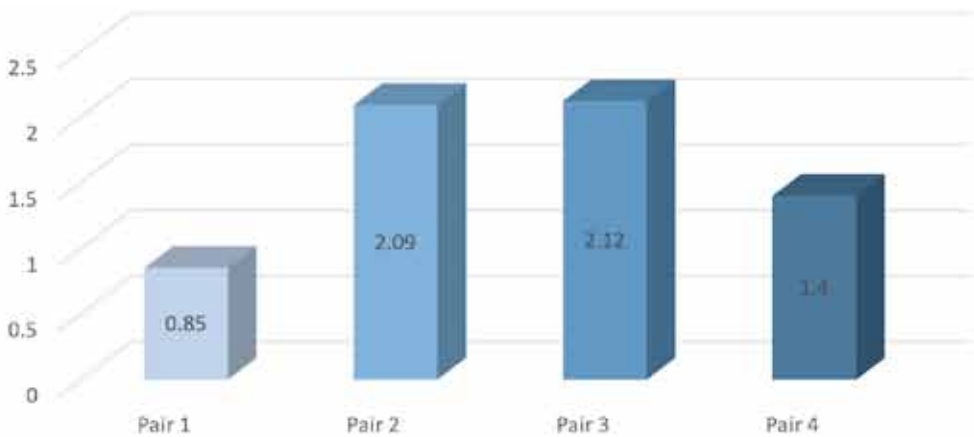
DMT

Figure 6. Complexity levels of the pairs during the decision-making task.

Again, the levels of complexity were significantly varied in the four learner pairs across the three tasks. In general, it can be seen in these data that the learners' utterances were more complex in the narrative task than in the personal information task, which tended to encourage learners to construct more fluent utterances (Figures 1-3). It is interesting to see that Pairs 2 and 3 constructed the most complex utterances in the decision-making task, and Pairs 1 and 4 constructed the less complex utterances in the same task. As we will see in the figures below, accuracy, as well as fluency (Figures 1-3), was promoted by the four learner pairs in the personal information task, and by Pairs 1 and 4 in the decision-making task. In contrast, the narrative task shows the lowest levels of accuracy, as well as in the decision-making task in Pairs 2 and 3. This evidence, thus, indicates trade-off effects between complexity and accuracy.

Figures 7-9 display the accuracy levels in the three tasks across the four learner pairs.
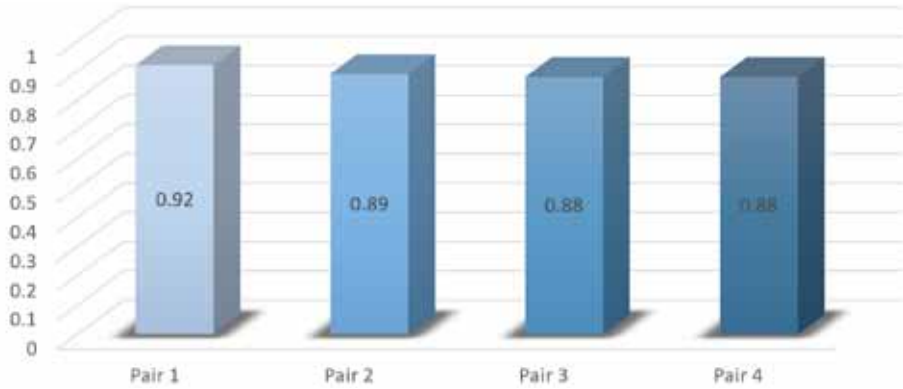
PIT

Figure 7. Accuracy levels of the pairs during the personal information task.
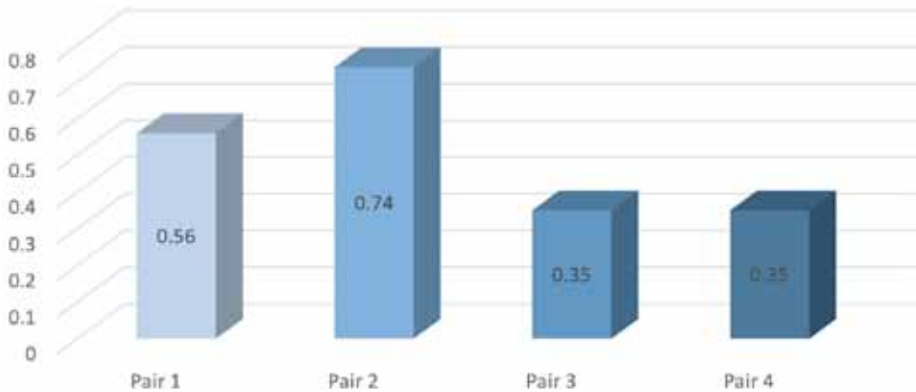
NT

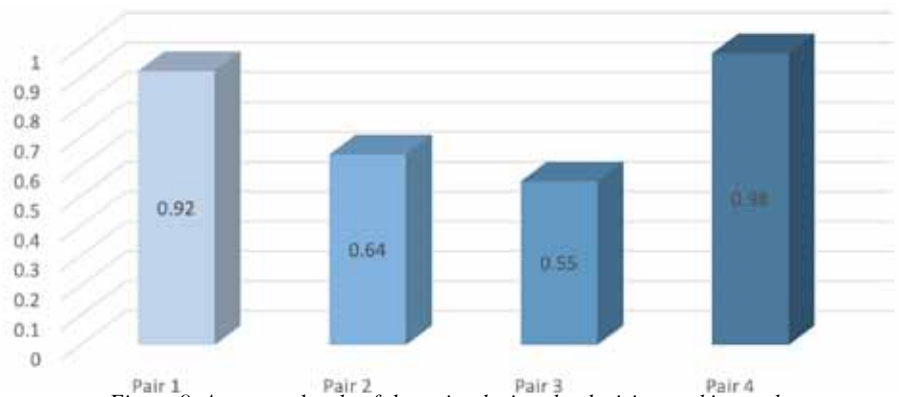*Figure 8. Accuracy levels of the pairs during the narrative task.*

DMT

Figure 9. Accuracy levels of the pairs during the decision-making task.

As we might expect, Table 3 shows that there was variability in the levels of accuracy in the three tasks. However, it is possible to identify a tendency towards greater accuracy in the personal information task than in the narrative and decision-making tasks. This, in turn, indicates that both fluency and accuracy were promoted during the personal information task, at the expense of complexity. A different trend can be seen in the narrative task, the accuracy levels tend to steeply decrease, if we compare the data from the personal information and narrative tasks in Figures 7 and 8. As shown in Figures 1 and 2, a similar tendency was observed for higher fluency levels in the personal information task than in the narrative task.

Therefore, this evidence indicates that there were trade-off effects between fluency and accuracy, and complexity. Hence, it could conceivably be hypothesised that these compensation effects were possibly motivated by the design of the tasks. However, as previously discussed, it was observed that in the decision-making task, Pairs 2 and 3 showed the highest levels of complexity, whereas Pairs 1 and 4 showed the highest levels of fluency. It can be seen in Figure 9 that Pairs 1 and 4 promoted the highest levels of accuracy. In contrast, Pairs 2 and 3 had the lowest levels of accuracy in the same task. Based upon this evidence, it may be the case, therefore, that besides the design characteristics of tasks, there are other factors which play a role in task performance as captured by the CAF levels. In the remainder of this paper, we provide perceptual data which suggest that the learners' perceptions of TD, influenced by their familiarity with the tasks, appeared to have influenced their task performance and thus the levels of CAF.

5. DATA ANALYSIS: LEARNERS' PERCEPTIONS OF THE TASKS

In order to answer RQ2, the present section explores the learners' perceptions of TD and the possible factors that motivate their perceptions.

5.1 Perceptions of the personal information task

In interview, the eight learner participants maintained that they often perform tasks which involve questions to exchange personal information, as the task used in this study. This is suggested in the following extracts:

Extract 1. Quote from Learner 3 (Pair 1)

"Normally, she [the teacher] gives us some questions that we need to ask to our classmates. Those questions are related to different topics that we see in class."

Extract 2. Quote from Learner 7 (Pair 4)

"Those are easy things [questions] like: What do you do during weekends? Or what do you think about alcoholism? Or things like that."

From the data in Extracts 1 and 2, Learners 3 and 7 suggest that the speaking tasks that they normally perform to practise the language involve questions-and-answers practices

during which they discuss personal information. This reveals that the learners not only were familiar with the personal information task of this study, but also perceived it as "easy" (Learner 7), as suggested below:

Extract 3. Quote from Learner 1 (Pair 1)

"The first one about the personal questions was very easy because of the structure of the question. Since we often practise this kind of task, it is easy to formulate answers."

Extract 4. Quote from Learner 7 (Pair 4)

"I think that this part [task] was the easiest because most of the times we practise it here, right? That one about personal questions."

What stands out in the data of Extracts 3 and 4 is that both learners perceived the personal information task as easy because they practise this type of task frequently. Interestingly, these two learners were able to suggest the reasons why this task was perceived as easy. For example, Learner 1 claims that the easy nature of the personal information task was due to the structure of the questions. Other reasons for the easiness of the personal information task include:

- Questions that trigger information which has been practised before (Learners 1 and 7);
- Questions with simple structure (Learner 5);
- Use of basic vocabulary and grammar structures (Learner 5);
- Personal information tasks as friendly activities (Learner 8).

So far, we have seen that the learners were familiar with the personal information task. In combining these results with those from the interactional data in the previous section, it is possible to suggest that the familiarity of the learners with the personal information task influenced their perceptions of the task as "easy" and in turn allowed them to focus their attention on fluency and accuracy, at the expense of complexity.

5.2. Perceptions of the narrative task

Regarding the narrative task, six out of eight learners felt that this task promoted their language creativity. This is suggested in the extracts below.

Extract 5. Quote from Learner 1 (Pair 1)

"With the images you have to be more creative, or explore more what you know about English in order to interpret that image."

Extract 6. Quote from Learner 4 (Pair 2)

"In the images, it is necessary to be more creative and the perceptions [of the images] can be different."

It can be seen in these data that the learners perceived that the narrative task allowed

them to be more creative in terms of language use. However, when asked how often and whether the learners were given opportunities to practise narrative tasks, they all mentioned that they do not perform this kind of task frequently, as evidenced in "but we do not see images and invent stories everyday" (Learner 2) and "we do not frequently have speaking activities with images" (Learner 8). As suggested below (Extracts 6 and 7), the complex cognitive demands of the narrative task, alongside the learners' lack of familiarity with it, appear to have motivated their perceptions of this task as difficult.

Extract 6. Quote from Learner 8 (Pair 4)

"The difficulty resided in the fact that you start inventing a story which is not common. In other words, my mind has to start working in order to create a story which is not real, and I need to invent it myself."

Extract 7. Quote from Learner 6 (Pair 3)

"Because maybe everything was related, but you had to think what you were going to say."

What is interesting is that these learners felt that the difficulty of this task was motivated by the need to draw on several cognitive processes to first decode the visual input of the images and then construct utterances to communicate their intent simultaneously. It can, therefore, be suggested that this complex, yet simultaneous, processes may have motivated their perceptions of the narrative task as difficult. This suggestion is borne out by the interview data themselves, which indicated that the learners struggled with not only interpreting and constructing the story orally, but also retrieving the vocabulary to get across their intent and get the task done, as evident in the following extracts:

Extract 8. Quote from Learner 4 (Pair 2)

"There were many things that we wanted to say, but we were not able to find the words, right? Or the context in which to express them and make them clear."

Extract 9. Quote from Learner 2 (Pair 1)

"Well, you have to use other vocabulary which you are not commonly used to. Then, there were some barriers."

Again, as suggested in Extract 8, Learner 4 claimed that she struggled to retrieve vocabulary to perform the demands of the tasks. Similarly, Learner 2 suggests that the task required the use of vocabulary which was not frequently used by him and this limited him from performing the task.

Moreover, in the interactional data, some learner pairs were found to be taking turns to contribute to the interactions. In interview, we then asked them why they decided to carry out a turn-taking interaction during this task. The following responses were suggested:

Extract 10. Quote from Learner 6 (Pair 3)

"I was listening to what she was saying and me thinking how to follow up the story and what I was going to say."

Extract 11. Quote from Learner 5 (Pair 3)

"I tried to relate the images of the story. When it was my turn to describe it, I already had in my mind the words that I was going to say in English."

These extracts suggest that the turn-taking interaction during the narrative task enabled them to plan their oral contributions, as evident in "thinking how to follow up the story," and "When it was my turn to describe it, I already had in my mind the words that I was going to say in English." Based upon this evidence, it seems possible to suggest that during cognitively challenging tasks, learners make interactional decisions (e.g. taking turns) to reduce the cognitive demands of tasks. In the remainder of this paper, we provide further perceptual evidence which suggests that other interactional decisions were made by the learners during the decision-making task which seem to have influenced the trade-off effects between fluency and accuracy, and complexity.

5.3. Perceptions of the decision-making task

In contrast to the narrative task, the majority of the learners did not perceive the decision-making task as difficult, despite the fact that this task is claimed to involve complex cognitive processes (see Foster & Skehan, 1996). This is suggested in the two extracts below.

Extract 12. Quote from Learner 1 (Pair 1)

"To me, the pictures were the easiest because they show things that happen to you and you can easily talk about that and that task is more for sharing opinions."

Extract 13. Quote from Learner 8 (Pair 4)

"No, not difficult because you can rapidly realise that the activities are recent, of technology. Therefore, it was easy to talk about them [pictures]."

As can be seen in Extracts 12 and 13, the decision-making task tended to be perceived as an easy activity. For example, Learner 1 explains that this task enabled them to relate themselves to the activities that were shown in the pictures. These perceptions were contrary to our expectations concerning the performance of this task. However, in the interactional data, the four learner pairs were observed to be only describing the pictures without engaging in an interaction to negotiate the choices and then reach an agreement. This was also verbalised by the learners, as suggested below.

Extract 14. Quote from Learner 1 (Pair 1)

"We described the pictures and we shared our points of view regarding each picture, right? I think we did not reach an agreement, but we extensively talked about technology"

Extract 15. Quote from Learner 7 (Pair 4)

"It was about observing the pictures and the first thing we did was to talk about what was happening in each one, right? About what we thought was happening in each picture."

Looking at the data in these two extracts, it is interesting to see that the learners mentioned that they only described the pictures, without negotiating the choices to reach an agreement about the most typical activity shown in the pictures. This unexpected result could be attributed to the learners' previous experiences practising similar tasks which required them to describe pictures. This is suggested in the extract below.

Extract 16. Quote from Learner 2 (Pair 1)

"In the textbook, there are other activities with pictures and there we have to carry out those activities in which we describe."

As suggested in Extract 16, Learner 2 states that her textbook often has pictures which they have to describe as part of speaking practice. Based upon the interactional data that indicated that the learners were mostly describing the pictures, and Learner 2's suggestion that similar tasks were used to describe pictures (Extract 16), it is possible to hypothesise that the learners were adapting their interactional behaviour during the decision-making task to resemble the speaking practice that they normally have in their English class. It is then possible that when learners are not familiar with tasks, they may approach them in a way which is familiar to them to perhaps reduce the cognitive load. In other words, describing pictures and associating them with past experiences may require less attention from the learners because this involves exchanging familiar information which may have been rehearsed previously. Interestingly, as shown in the interactional evidence, it was within this task in which we observed trade-off effects between fluency and accuracy, and complexity. Thus, it seems that the learner pairs' decisions to only describe the pictures and associating the activities to past experiences without negotiating the choices influenced Pairs 1 and 4 to be more accurate and fluent than complex.

6. DISCUSSION

The present study set out to explore the extent to which learners' perceptions of TD shaped their oral performance as captured by the CAF dimensions. In order to answer RQ3, we combine and discuss the results of the interactional data and perceptual data, as discussed below.

As reported in previous studies (García-Ponce, E. E., Mora-Pablo, I., Lengeling, M. M., & Crawford, T. 2018)[2], the interactional data indicated that there was a dynamic interaction among complexity, accuracy and fluency in the personal information, narrative and decision-making tasks. This created trade-off effects between fluency and accuracy, and complexity. Skehan (1998) argues that these compensation effects are a result of an imperfectly learned language which imposes a large burden on learners' attentional capacity systems, and causes them to make choices on being complex, being accurate or being fluent (as cited in Tavakoli & Foster, 2008). Namely, in the personal information task, the four learner pairs were found to promote fluency and accuracy, compromising complexity. This evidence lends support to previous research which found that tasks for discussions of familiar information tend to raise fluency and accuracy but not complexity (Foster & Skehan, 1996; Skehan, 2003, 2009; Tavakoli & Foster, 2008). The reason for this is that tasks which require learners to discuss familiar information possibly already rehearsed in English may require the least cognitive attentional effort (Foster & Skehan, 1996), allowing learners to focus their attention on both fluency and accuracy. This was borne out in the learners' responses which suggested that they perceived this task as easy because the questions required them to retrieve and discuss personal information which had been previously practised and involved basic vocabulary and grammar structures.

Regarding the narrative task, the teacher classified this task as difficult. Contrary to previous studies which have suggested that a tight narrative structure promotes accuracy and fluency in language performance (Foster & Skehan, 1996; Skehan & Foster 1997), the interactional data showed that this structured narrative task entailed more complex utterances, even more than the personal information task and the decision-making task, in Pairs 1 and 4. According to Robinson (2001), cognitively challenging tasks correlate with more complex language, because its demands more elaboration and subordination to attain the goal of narrating the clearly structured sequence of images increasing in turn complexity levels. In interview, the learners perceived this task as difficult. Interestingly, they were able to mention the factors that contributed to their perceptions of this task as difficult. Specifically, they mentioned that this task required them to draw on several cognitive processes to first decode the visual input of the images and then construct utterances to communicate their intent. Moreover, the learners claimed that the task required them to use vocabulary that was not frequently used and thus placed a burden to retrieve it easily. Therefore, this evidence suggests that the lack of familiarity with narrative tasks required greater attention from the learners to execute the tasks and, hence, placed a processing burden, compelling them to focus on complexity in order to accomplish the goal of the task. Because of their perceptions of this task as difficult, it is possible to suggest that during cognitively challenging tasks, learners may make interactional decisions (e.g. taking turns) to reduce the cognitive demands of tasks. This was corroborated by both the interactional and perceptual data which showed that the learners were taking turns to narrate the story in such a way that they had time to process the sequential images and then contribute to the narration orally.

Regarding the decision-making task, the teacher categorised this task as difficult because

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2 Foster & Skehan, 1996 y Garcia-Ponce et al., 2018

of the different requirements to attain its pedagogic goals. However, the learner pairs in interview did not perceive this task as difficult, contrary to our expectations and previous research (see Foster & Skehan, 1996). In this task, the learner pairs had to describe the six pictures, and then evaluate the visual information and negotiate the six choices to reach an agreement. Because of its complex nature, we expected that this task would encourage high levels of complexity because this kind of tasks demands more attention for describing and negotiating the choices than just discussing personal information which is familiar to the learners. However, one unanticipated finding was that in this task, high levels of complexity were observed in Pairs 2 and 3; Pairs 1 and 4 were found to be oriented towards fluency and accuracy. Interestingly, learners in Pair 1 and 4 during the interview mentioned that they decided to approach this task by only describing the pictures and relating them to activities which are familiar to them in their context. This may explain their perceptions of this task as "easy", since processing and using information which is familiar to learners may require fewer cognitive demands of the task. Also, in the perceptual data, the learners claimed that they normally describe pictures on the textbook without negotiating choices. Therefore, they decided to approach the task following their previous experiences, requiring less cognitive effort and thus increasing high levels of fluency and accuracy.

The findings of this study support Robinson's (2001) findings that learners' perceptions of TD clearly relate to the cognitive demands of tasks. However, in this study, the degree of TD perceived by the learners was found to be influenced by the extent to which the learners were familiar with the task characteristics (e.g. question-and-answer routines) and the visual input (images and pictures) of the tasks. An implication of this is that if learners are to approach tasks following pedagogic goals, it is necessary that learners are given opportunities to get familiar with the design characteristics and demands of different tasks. Those tasks whose content is familiar to the learners should be performed first, and then gradually the learners should start performing tasks which are more in terms of content and cognitive demands.

7. CONCLUSIONS

The present study set out to investigate from naturalistic and exploratory lenses the possible influence of learners' perceptions of the difficulty of three tasks on their oral performance captured by levels of CAF in an EFL context. The findings suggest that their perceptions of TD may be influenced by their familiarity with the design and cognitive demands of tasks. This seems to have had an impact on the levels of CAF. Namely, the personal information task was considered by the learners as an easy task because of the use of familiar information which was previously practised. These perceptions of this task as easy and their familiarity with it tended to increase high levels of fluency and accuracy, compromising complexity. In contrast, in the narrative tasks, high levels of complexity were found at the expense of fluency and accuracy. Our explanation is that to attain the goal of this task, the learners had to construct complex utterances, but because of their limited attentional capacities, they were unable to focus on the three language areas simultaneously. Interestingly, the perceptual data

revealed that the factors, such as complex cognitive demands to perform the task and use of infrequent vocabulary, increased the difficulty perceived by the learners in performing this task. Contrary to our expectations, the decision-making task was perceived by the learners as an easy task. During this task, two pairs were oriented towards fluency and accuracy, whereas the other two pairs were focused on the complexity of their utterances. Regarding the former pairs, our perceptual data suggested that the learners were performing the task in a way that it was more familiar to them (i.e. describing pictures and associating them to past experiences without negotiating the choices), possibly avoiding interactional behaviour which would place a burden in their cognitive load.

The present study was subject to a number of potential weaknesses. Firstly, the findings of this study come from a small amount of data collected from four learner pairs. Secondly, the data collection took place once. Therefore, more needs to be done in order to continue understanding the link between learners' perceptions of TD and the CAF language areas. Moreover, more evidence is needed in order to understand how best to facilitate language learning through a combination of learners' perceptions and their task performance. Although the findings should be interpreted with caution, the study has gone some way towards enhancing our understanding of TD from an exploratory and naturalistic perspective, some factors that influence it, and how it potentially shapes learners' CAF areas.

8. References

Foster, P., & Skehan, P. (1996). The influence of planning and task type on second language performance. *Studies in Second Language Acquisition*, *18*, 299–323. https://doi.org/10.1017/S0272263100015047

Larsen-Freeman, D. (2009). Adjusting expectations: The study of complexity, accuracy, and fluency in second language acquisition. *Applied Linguistics, 30*(4), 579-589. https://doi.org/10.1093/applin/amp043

Li, W. D., Lee, A., & Solmon, M. (2007). The role of perceptions of task difficulty in relation to self-perceptions of ability, intrinsic value, attainment value, and performance. European Physical Education Review, 13, 301–318. https://doi.org/10.1177%2F1356336X07081797

Mackey, A. & Gass, S. M. (2005). *Second language research: Methodology and design*. Lawrence Erlbaum Associates.

Mangos, P. M., & Steele-Johnson, D. (2001). The role of subjective task complexity in goal orientation, self-efficacy, and performance relations. *Human performance*, *14*(2), 169-185. https://doi.org/10.1207/S15327043HUP1402_03

Prabhu, N. S. (1987). *Second language pedagogy* (Vol. 20). Oxford University Press.

Richards, J. C. (2015*). Key issues in language teaching*. Cambridge University Press.

Robinson, P. (2001). Task complexity, task difficulty, and task production: Exploring interactions in a componential framework. *Applied linguistics*, *22*(1), 27-57. https://doi.org/10.1093/applin/22.1.27

Skehan, P. (2003). Task-based instruction, *Language Teaching*, 36, 1-34. https://doi.org/10.1017/S026144480200188X

Skehan, P. (1998). *A cognitive approach to language learning*. Oxford University.

Skehan, P. (1996). A framework for the implementation of task-based instruction. *Applied Linguistics, 17*(1), 38–62. https://doi.org/10.1093/applin/17.1.38

Skehan, P., & Foster, P. (1997). Task type and task processing conditions as influences on foreign language performance. *Language Teaching Research*, 1, 185–211. https://doi.org/10.1177%2F136216889700100302

Skehan, P., & Foster, P. (2008). Complexity, accuracy, fluency and lexis in task-based perform-ance: A meta-analysis of the Ealing research. In S. Van Daele, A. Housen, F. Kuiken, M. Pierrard, & I. Vedder (Eds.), *Complexity, accuracy, and fluency in second language use, learning, & teaching* (pp. 207–226). KVAB.

Tavakoli, P. (2009). Investigating task difficulty: Learners' and teacher's perceptions. *International Journal of Applied Linguistics*, *19*(1), 1–25. https://doi.org/10.1111/j.1473-4192.2009.00216.x

Tavakoli, P., & Foster, P. (2008). Task design and second language performance: The effect of narrative type on learner output. *Language Learning*, *61*, 37-72. https://doi.org/10.1111/j.1467-9922.2008.00446.x

Tavakoli, P., & Skehan, P. (2005). Strategic planning, task structure and performance testing. In R. Ellis (Ed.), *Planning and task performance in a second language* (pp. 239–273). John Benjamins.

García-Ponce, E. E., Mora-Pablo, I., Lengeling, M. M., & Crawford, T. (2018). Task design char-acteristics and EFL learners' complexity, accuracy and fluency during uncon- trolled pair interactions: A naturalistic perspective. Iranian Journal of Language Teaching Research, 6(1), 75-92.

Van Velsor, E., & McCauley, C.D. (2004). Introduction: Our view of leadership development. In C.D. McCauley & E. Van Velsor (Eds.), *The Center for Creative Leadership handbook of leadership development* (pp. 1-22). Jossey-Bass.

APPENDIX I
Interview guide

1. ¿Qué recuerdas de la práctica que realizamos en el salón de clase?
2. ¿En qué te enfocas cuando practicas el speaking?
3. ¿Cómo percibiste cada tarea?
4. ¿Podrías detallar cómo desarrollaste cada una de las tareas?
5. ¿Hay algo que planeas cuando realizaste alguna de las tareas?
6. ¿Qué es más importante? ¿Ser fluido o hablar sin errores?
7. ¿Fueron estas (personal information, narrative y negotiation tasks) difíciles?
8. ¿Podrías describir qué hizo que fueran fáciles o difíciles?
9. ¿Hiciste algo para que no fueran tan difíciles?
10. ¿Si volvieran a practicar estas tareas sería más fácil? ¿Por qué?