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Task Design Characteristics and EFL Learners' Complexity, Accuracy and Fluency during Uncontrolled Pair Interactions: A Naturalistic Perspective

Edgar Emmanuell García-Ponce [a,*], Irasema Mora-Pablo [a], M. Martha Lengeling [a], Troy Crawford [a]

[a] *Universidad de Guanajuato, Mexico*

ABSTRACT

Over the past few decades, research has shown that complexity, accuracy and fluency (CAF) cannot be promoted simultaneously during task performance because of limitations in learners' attentional capacities. However, the behaviour of these three language dimensions has been mostly investigated under controlled classroom conditions which do not reflect real teaching and learning practices accurately. In response to this shortcoming, the present study set out to explore the effects of three tasks (personal information, narrative and negotiation tasks) on CAF levels during pair interactions in two uncontrolled English as a Foreign Language (EFL) classrooms. By drawing on metrics which index CAF levels, the findings corroborate that the learners' CAF areas cannot be promoted equally during the performance of the three tasks. However, by closely looking at the transcribed interactional data, the findings suggest that learners' agency plays an important role in approaching the tasks, shaping in turn their CAF levels in varied ways. Based upon these findings, the study puts forward the argument that learners' CAF levels cannot be predicted because uncontrolled classroom interactions are environments where several, yet interrelated, factors come into play. Some of these factors are discussed in this paper.

Keywords: accuracy; complexity; fluency; English as a foreign language; speaking task; trade-off effects

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* Corresponding author: Departmento de Lenguas, Universidad de Guanajuato, Guanajuato, Mexico
Email address: ee.garcia@ugto.mx

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Introduction

Since the emergence of communicative approaches (e.g., Communicative Language Teaching and Task-Based Instruction), tasks as instructional materials have been claimed to shape learners' language performance quantitatively and qualitatively. This is because their design and methodological aspects determine the cognitive processing and demands that learners need in order to perform the tasks and achieve their purpose, having an impact on the quantity and quality of learners' language performance (Garcia-Ponce, 2017). Motivated by the above claim, research since the 1980s has been centred on the effects of tasks on learners' language performance which, according to Larsen-Freeman (2006, 2009), Rosmawati (2014) and Skehan and Foster (2008), is effectively captured by the complexity, accuracy and fluency (henceforth CAF) constructs.

Until recently, the interplay between tasks and the CAF dimensions has been mostly investigated through experimental perspectives in order to:

1) generalise findings of the mental mechanisms involved in language information processing, storage, and retrieval;

2) guide learners' attention to particular target language forms; and

3) provide teachers and researchers with information concerning the design and choice of task design characteristics which are beneficial for promoting learners' CAF equally.

However, our experience as language teachers and researchers has inevitably led us to question the extent to which the conditions that have been controlled in this previous research actually reflect the practices that are commonly carried out in English as a Foreign Language (EFL) classrooms. In response to this shortcoming, the present study set out to explore the effects of three tasks, i.e., personal information, narrative and negotiation tasks, on EFL learners' CAF during uncontrolled pair interactions. Two research questions guided the study:

1. What is the dynamism of the complexity, accuracy and fluency dimensions in personal information, narrative and negotiation tasks performed during uncontrolled learner pair interactions?

2. What do the transcribed interactions reveal about the interface between the learners' interactional behaviour and complexity, accuracy and fluency in the three tasks?

The contribution of this study is that it examines, for the first time, the effects of three tasks on the learners' CAF from exploratory and naturalistic lenses. In this study, we do not intend to criticise the methodologies and findings that have been reported in previous experimental studies. Rather, our starting point here is that due to the popularity of tasks to teach, learn and assess the target language, it is important that language educational research yield findings that have practical value for teaching and learning practices in EFL classrooms.

Literature Review

For more than three decades, language educational research has argued that L2 performance and development are complex in nature (Ellis & Barkhuizen, 2005; Sadeghi, 2016). The complex aspects of L2 performance and development are claimed to be fruitfully captured by the CAF

constructs because they gauge, describe and benchmark L2 production (Larsen-Freeman, 2006; Rosmawati, 2014; Skehan & Foster, 2008). In this study, these three language constructs are defined as follows:

- Complexity is the extent to which target language production reflects grammatically complex and advanced structures (Richards, 2015).

- Accuracy is viewed as a concern to avoid error, or "the ability to produce target language that is free of grammatical and other errors" (Richards, 2015, p. 730).

- Fluency refers to "the extent to which target language production is continuous, without causing comprehension difficulties or a breakdown of communication" (Richards, 2015, p. 738).

Motivated by a practical concern to uncover the cognitive demands and processes that learners need in order to develop the CAF of their utterances (Tavakoli & Foster, 2011), tasks[1] as instructional materials have long been used. However, empirical research has revealed that task design characteristics and implementation conditions (e.g., pre-task and online planning) encourage learners to direct their attention to different dimensions, but not the three simultaneously (see, for example, Bamanger & Gashan, 2015; Foster & Skehan, 1996; Kawauchi, 2005; Tavakoli & Skehan, 2011; Yuan & Ellis, 2003, to name a few). Particularly, complexity and accuracy have been found to be competing during task performance. According to Skehan and Foster (2008), it is possible that the levels of both dimensions increase by allowing some planning conditions, but such occasions are not frequent. More frequent is simultaneous beneficial effects on complexity and fluency, or on accuracy and fluency. Learners' inability to promote the three language performance areas effectively is believed to be a consequence of limitations in their attentional capacities (Foster & Skehan, 1996, 1999, 2013; Larsen-Freeman, 2009; Skehan, 1998, 2003, 2009). Thus, learners have to make decisions as to how to allocate their attentional resources by prioritising one of these aspects of language over the others (Bamanger & Gashan, 2015). These trade-off effects become a challenge for language teachers, testers and researchers because these effects suggest that learners need to use tasks that make realistic processing demands so that they allocate their attention to the three CAF areas equally, not only to get the task done (Skehan & Foster, 2008).

The above research findings have represented, we believe, a timely attempt to understand some of the processes involved in language performance and development. Task-based studies have taken for granted a clear relation among task design characteristics, planning conditions, learners' cognitive processing, and the CAF dimensions. However, despite this evidence, there are still inconsistent findings due to differences in the methodology and the lack of consistency in measurements used in these studies, triggering many individual or combined effects (Skehan & Foster, 2008; Tabari, 2016). Things get even more complicated when considering all the factors that come into play during task and language performance. These previous studies have been looking for features of tasks that yield, for example, complex linguistic performance. However, as far as we can see, the complexity of language performance depends a great deal on who is performing what within the task. In other words, it is not the characteristics of the tasks themselves, but rather the interaction between the task and (a) particular task taker(s). Therefore, these studies have not offered a complete picture of the factors that play a role in the interplay between task performance and CAF, because they have attempted to control the context and interactions in order to ensure that the intervention is implemented uniformly. Due to the tight

control of variables (e.g., the context), we can claim that the interactions and thus the language performance areas have been deliberately influenced to such an extent that they may not resemble task performance in real classroom interactions. Besides task design characteristics, other important factors that may shape the interaction of the CAF dimensions include, but are not limited to, the teaching and learning context, context-sensitive pressures and affordances, and learners' cognitions (i.e., experiential knowledge, perceptions, self-concepts, beliefs and affective states) and agency (goals, orientations and decision-making) (Ellis, 2009; Larsen-Freeman, 2006, 2009).

In response to the above knowledge gap, this study is a starting point to explore from naturalistic lenses the dynamism of the CAF dimensions in relation to task design characteristics and their natural teaching and learning context. That is, following the claim that experimental research designs do not reflect real classroom interactions (Foster, 1998), no classroom variable was controlled in this study with a view to understanding learners' interactional behaviour and agency during the performance of the three tasks. A full discussion of all the factors that influence language performance and thus the CAF dimensions is beyond the scope of this study. However, the findings of the study should make a major contribution to research by exploring the CAF dimensions during interactions that took place in real EFL classrooms without modifying the structure and dynamics of the class, and perhaps yielding findings which help us reconsider the way the target language is taught, learned and assessed in EFL classrooms.

The study

The present study is part of a larger project which seeks to investigate the effects of several factors including learners' cognitions (i.e., experiences, perceptions, self-concepts, beliefs and affective states) and agency (goals, orientations and decision-making), different task design characteristics and implementation conditions (e.g., pre-task, online, and individual and group planning) on EFL learners' CAF during uncontrolled classroom interactions. The nature of this study is twofold. It is firstly exploratory since the primary aim of the study is not to test hypotheses, but to explore the extent to which the three tasks that are commonly performed in this EFL context impact on the learners' levels of CAF. Based upon our experience as language teachers and researchers, we believe that it is insufficient to rely on quantitative statistics and experimental views which do not always show a complete picture of what is happening in the language classroom. Instead, it is necessary to delve deeper into the subjective and intricate qualities that govern language teaching and learning behaviour (Holliday, 2002). Secondly, this study is naturalistic in the sense that the explorations were conducted to study classroom practices in their natural settings without modifying their structure and dynamics, attempting to make sense of language performance and interpret CAF phenomena by adopting an interpretive, naturalistic and exploratory approach to its subject matter (Denzin & Lincoln, 2005). By employing these modes of enquiry, we thus attempt to develop a greater and deeper understanding of how tasks and other factors impact on learners' CAF during uncontrolled interactions in EFL classrooms.

Research context

The study was conducted in a higher educational context in Mexico which offers four-year degree programmes to become English or Spanish as foreign language teachers, and foreign language courses open to the general public. Specifically, the study took place in two classrooms where English is taught as a foreign language at an advanced level. In this context, the target language class meets for five hours per week. The classroom practices are focused on the four language skills, grammar and vocabulary.

Participants

In total, the participants of this exploratory study were 22 learners (from two classrooms) and one teacher, who was the teacher of the two classes, at the *Departamento de Lenguas* at the *Universidad de Guanajuato* in central Mexico. Prior to the data collection, we informed the teacher and learner participants of the research project, and how the data would be collected and analysed. Moreover, we ensured that they were aware of their right to withdraw at any stage of the study, and to be anonymised in the data analysis and discussions. They all agreed to participate under no obligation, and gave their consent on a Consent and Information sheet that we provided to them.

The learner participants were eight males and 14 females. Their ages ranged from 18 to 30 years old. They were enrolled at advanced levels, but their English proficiency was considered to be upper-intermediate level (B1 level according to the Common European Framework of References for Languages). They were language learners and professionals who claimed to be keen to learn and improve their English because of academic and job requirements. The teacher participant was a 47-year-old female, with more than 15 years of teaching English. She also holds an MA in Teaching English to Speakers of Other Languages.

Data collection

Following the claim that recorded classroom interactions can provide a detailed, comprehensive and unrestricted description of participants' naturally-occurring interactional behaviour (Larsen-Freeman & Long, 1991), four pair interactions (two from each classroom) were audibly recorded during the month of March 2017. We decided to explore the CAF dimensions during pair interactions because learners are claimed to actively engage in a task if they are in dyads rather than groups (Tavakoli & Foster, 2011). In order not to influence the classroom practices and thus the learners' interactions during the pair work, we asked the teacher to explain and administer the three tasks under exploration in this study: personal information task, narrative task, and negotiation task (see below). Moreover, the tasks were classified by the participant teacher and researchers according to their perceived difficulty (see Gheisari, 2017; Tavakoli, 2009).

1) *Personal information task*. During this task, the learners were asked to interview each other using small cards which contained questions, for example:

    a. How do you like to spend your holidays?
    b. What are you going to do this weekend?
    c. Why is English useful or important to you?
    d. What's your favourite day of the week?

This task was categorised as easy because the learners needed to discuss personal information that may have possibly been rehearsed previously. Since its characteristics involved the fewest cognitive demands releasing attentional resources (see Foster & Skehan, 1996; Skehan, 2003, 2009; Tavakoli & Foster, 2011), it was expected that this task would allow the learner pairs to prioritise accuracy and fluency.

2) *Narrative task*. During the narrative task, the learners were shown 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. Based on these sequential images, they mutually needed to create a story orally without the aid of any text. Since the learners needed to interpret the sequential images, retrieve vocabulary from their short- and long-term memory, and formulate their oral production at the same time that they interpreted the images, this task was categorised as difficult. It was expected that this cognitively demanding task would promote high complexity levels (see Robinson, 2001).

3) *Negotiation task*. Following the question: "What are the young people in the pictures doing?", this task firstly involved the learners describing six pictures which showed activities that young people do. Once the pictures were described, the learners were asked the question: "Which picture is most typical of young people today?" in order to encourage them to negotiate the visual choices. As in the narrative task, the negotiation task was categorised as difficult because the learners needed to first describe and then negotiate the choices seen on the pictures, increasing cognitive demands and thus high complexity levels in order to attain its goal (see Robinson, 2001).

The three tasks were administered without allowing any planning conditions because the teacher claimed that the absence of planning conditions reflected the way speaking tasks were commonly performed in her classrooms. In total, 120 minutes of pair interactions were recorded, ten minutes approximately for each task in each pair. The 120 minutes of recorded pair interactions were transcribed in their entirety, and segmented into words, clauses, AS-units (Analysis of Speech units), and complete utterances for analysis purposes (Lotfipour-Saedi, 2015).

Data analysis

The learners' oral performance in this study was explored through metrics which index fluency, complexity, and accuracy. The following tables describe these metrics, starting with the fluency measure:

Table 1
Measure for Fluency

Mean Length of Utterance (MLU)	Calculated by counting the number of learners' words, and dividing them by the learners' total number of utterances in the pair interactions.

Table 1 shows the metric used to explore the learner pairs' fluency levels. We acknowledge that length-based measures, such as the one included in this study, have been surrounded by criticisms, and alternative measures have been suggested. Skehan (1998) and Foster and Skehan (1999) explain that measuring fluency is more contentious than the other dimensions (complexity and accuracy). This has been evident in a large number of fluency measures that research literature has formulated (Foster & Skehan 1996, 1999; Skehan, 2009). For example, measures that explore temporal variables (i.e., the speed of speaking) and hesitation phenomena (i.e., dysfluency; Ellis & Barkhuizen, 2005): 'breakdown fluency' and 'repair fluency' (Skehan, 1998). In particular, a debate has been triggered as to whether length-based measures, such as the one above, tap fluency or complexity. Consistent with Wolfe-Quintero, Inagaki and Kim (1998), we decided to include the above length-based measure as indicative of fluency rather than complexity. The rationale behind this decision is that the number of words per utterance was found to index learners' ability to construct the length of utterances in an articulate way during interactions. Alternatively, we included a complexity-based metric which views the learners' ability

to construct "elaborate language with greater syntactic patterning" (Ellis & Barkhuizen, 2005, p.139; see also Foster & Skehan, 1996).

The learners' complexity was indexed by clausal complexification, which is commonly associated with the idea that "more means better" (Foster, Tonkyn & Wigglesworth, 2000, p. 355). Table 2 shows the complexity-based metric included in this study:

Table 2
Measure for Complexity Levels

Clauses per AS-unit (Phrasal elaboration)	Calculated by the total number of learners' full clauses per the total number of learners' AS-units.

An AS-unit is defined as "a single speaker's utterance consisting of an independent clause, or sub-clausal unit, together with any subordinate clause(s) associated with either" (Foster et al., 2000, p. 365). In other words, an AS-unit can consist of one-word turns, minor utterances, full clauses, subordination and coordination. As suggested by Foster et al. (2000), self-repetitions and false starts in the interactional data were disregarded from the interactional data in order to measure accurately full ideas and intentions in the learner pair talk during task performance.

Prior to analysing accuracy, it was necessary to establish what constituted an error. The following criteria were then coded for identifying and counting errors in order to measure the learners' accuracy:

- Errors in word selection
- Errors in morphology
- Errors in syntax
- Errors in pronunciation
- False starts, hesitations and self-corrections were excluded

After identifying and counting the learners' errors, the following holistic metric was used to determine the learners' accuracy levels.

Table 3
Measure for Accuracy Levels

Error-free clauses	Calculated by identifying the number of learners' error-free clauses, divided by the total number of clauses produced by the learners, and multiplying the result by 100.

Even though we used metrics that have been previously used in experimental studies, here we have simply diverged from the more traditional experimental approach and have chosen to look at the language production from a different viewpoint. As previously stated, we focused on a naturalistic interpretation of the participants' interactions.

Findings

In order to explore: 1) the dynamism of the complexity, accuracy and fluency dimensions in personal information, narrative and negotiation tasks performed during uncontrolled learner pair interactions; and 2) the interface between the learners' interactional behaviour and complexity, accuracy and fluency in the three tasks, this section examines the levels of the three dimensions across the three speaking tasks. Overall, the findings show that fluency, complexity and accuracy were heavily influenced by the characteristics of the three tasks. Both fluency and complexity were found to be promoted in the narrative and negotiation tasks, whereas accuracy was only promoted during the personal information task.

Table 4 shows the fluency levels during the personal information, narrative and negotiation tasks across the four learner pairs.

Table 4
Levels of Fluency across Speaking Tasks

	Pair 1	Pair 2	Pair 3	Pair 4
Personal information task	11.4	14.4	12.9	12.3
Narrative task	16.1	37.6	23.2	26.7
Negotiation task	7.5	32.0	19.7	10.6

Note: The fluency levels were obtained by calculating the MLU, that is, counting the total number of words per the total number of utterances in each pair.

As seen in Table 4, the levels of fluency were significantly varied during the three speaking tasks across the four pairs. What stands out in Table 4 is that there was a general pattern of high fluency levels in the narrative task across the four pairs, and the negotiation task in Pairs 2 and 3. In the case of the personal information task, the table reveals that there was a considerable decrease in the fluency levels across the four pairs (an MLU of 11.4 to 12.9 compared to an MLU of 16.1 to 37.6 in the narrative task across the four pairs, and an MLU of 19.7 and 32.0 in the negotiation task in Pairs 2 and 3). Interestingly, there were also low fluency levels during the negotiation task in Pairs 1 and 4 (an MLU of 7.5 and 10.6, respectively). These low fluency levels sharply contrast with the fluency levels during the same task but in Pairs 2 and 3. As shown in Table 5, the complexity levels during the negotiation task in Pairs 2 and 3 were also low, suggesting that fluency and complexity were compromised during the negotiation task in these two learner pairs.

Table 5 summarises the complexity levels during the three speaking tasks across the four pairs.

Table 5
Levels of Complexity across Speaking Tasks

	Pair 1	Pair 2	Pair 3	Pair 4
Personal information task	1.1	1.1	0.9	0.9
Narrative task	1.8	2.2	1.6	2.3
Negotiation task	1.0	2.3	2.0	1.3

Note: The complexity levels were obtained by counting the total number of clauses per the total number of AS-units in each pair.

Again, the complexity levels were considerably varied during the three speaking tasks in the four pairs. However, Table 5 is revealing in several ways. First, it shows that the narrative task across the four pairs and negotiation task in Pairs 2 and 3 encouraged not only the highest fluency levels (see Table 4), but also the highest complexity levels. Second, it can also be seen that during the personal information task, the learner pairs constructed the least complex utterances (ranging from 0.9 to 1.1 clauses per AS-unit). This indicates that both fluency and complexity were

compromised during this speaking task. As we will see in the remainder of this section, learners' utterances were more accurate during the personal information task than the narrative and negotiation tasks. This thus suggests that there were trade-off effects between accuracy and fluency, and accuracy and complexity. Third, as in the case of fluency, the complexity levels during the negotiation task in Pairs 1 and 4 appeared to be low (1.0 and 1.3 clauses per AS-unit, respectively). This evidence is somewhat interesting because it shows that the learners in Pairs 1 and 4 were adopting interactional behaviours as in the personal information task. That is, the learners' pair interactions were oriented towards accuracy (see Table 6), at the expense of fluency and complexity (see Tables 4 and 5, respectively).

Table 6
Levels of Accuracy across Speaking Tasks

	Pair 1	Pair 2	Pair 3	Pair 4
Personal information task	96.6	88	91.1	93.4
Narrative task	50.5	56.3	42.8	45.2
Negotiation task	70.4	57.6	52.2	76.9

Note. The accuracy levels were obtained by counting the number of learners' error-free clauses, divided by the total number of clauses produced by learners, and multiplying the result by 100.

Similar to the fluency and complexity levels, Table 6 shows that there was a marked variability of accuracy during the three speaking tasks across the four pairs. What is interesting to note in Table 6 is that it was the personal information task that promoted the most accurate utterances in the four learner pairs. The narrative task across the four pairs and the negotiation task in Pairs 2 and 3, which previously showed the highest fluency and complexity levels, promoted the least accurate utterances compared to the accuracy levels in the personal information task. This again suggests that there was a competition between complexity and accuracy, and fluency and accuracy. Pairs 1 and 4 during the negotiation task also promoted high levels of accuracy. It is likely that the transcribed interactional data will reveal more information concerning these learners' interactional behaviour during the negotiation task and thus explain the similarity of their fluency, complexity and accuracy levels during the personal and negotiation tasks.

Overall, it was evident that the levels of fluency, complexity and accuracy were varied during the three speaking tasks across the four learner pair interactions. Nevertheless, it was possible to identify patterns that showed that there were trade-off effects between fluency and accuracy, and complexity and accuracy. Namely, during the personal information task, the learner pairs were seen to promote accuracy at the expense of fluency and complexity. Throughout the narrative task, learners' utterances were constructed with the highest fluency and complexity levels, compromising accuracy. During the negotiation task, it was interesting to note the learners' interactional behaviour which was oriented towards accuracy (Pairs 1 and 4), as in the personal information task, and fluency and complexity (Pairs 2 and 3), as in the narrative task. Taken together, the findings of this study indicated a marked variability and unpredicted behaviour of the levels of CAF which may be caused by multiple factors. The relevance of these findings is twofold. Firstly, they suggest that mere explorations of task characteristics may yield an unclear and incomplete picture of learners' CAF. Secondly, they reveal the need to examine other factors which come into play during task performance in order to have a better understanding of learners' CAF. The following section adds weight to this argument.

Discussions

Our investigation was designed to explore from naturalistic lenses how the characteristics of three speaking tasks influenced the CAF constructs during uncontrolled pair interactions. In addressing the research question: "What is the dynamism of the complexity, accuracy and fluency dimensions in personal information, narrative and negotiation tasks performed during uncontrolled learner pair interactions?", the interactional data showed that during the performance of the personal information, narrative and negotiation tasks, there was a dynamic interaction between complexity, accuracy and fluency. This created trade-off effects between accuracy and fluency, and accuracy and complexity. According to Skehan (1998), these trade-off effects are a consequence of learners' use of an imperfectly learned L2 which imposes a large burden on the learner's attention and causes the learner to make choices on being complex, being accurate and/or being fluent (as cited in Tavakoli & Foster, 2011). Namely, during the personal information task, the four learner pairs were found to promote accuracy, compromising both fluency and complexity. Previous research has found that tasks based upon discussions concerning personal information tend to raise accuracy and fluency but not complexity since these tasks involve familiar information possibly already rehearsed in English (Foster & Skehan, 1996; Skehan, 2003, 2009; Tavakoli & Foster, 2011). This may thus require the least cognitive effort (Foster & Skehan, 1996), or less attention to process (Tavakoli & Foster, 2011). However, the findings of this study show that during the personal information task, the learner pairs were solely oriented towards accuracy, at the expense of fluency and complexity. In addressing: "What do the transcribed interactions reveal about the interface between the learners' interactional behaviour and complexity, accuracy and fluency in the three tasks?", Excerpt 1 suggests that the characteristics of this task alongside the learners' perceptions of it encouraged them to be oriented towards accuracy.

Excerpt 1
Extract from Pair 2 During Personal Information Task

9.	L1: [Okay]. [//Do you like to cook?//]
10.	L2: [Yes]
11.	L1: [Good] [//Do you normally go out with family or friends?//]
12.	L2: [With family]
13.	L1: [With family?]
14.	L2: [Yeah always with my family] [and you?]
15.	L1: [With my husband and my two children]
16.	L2: [Oh yeah]
17.	L1: [Yeah my family]
18.	L2: [//What kinda [sic] sports do you enjoy?//]
19.	L1: [//I like all kind of sports in general//] [//I practice ball fitness//] [//do you know?//]
20.	L2: [No]
21.	L1: It's... [//It's a good sport// and //I practice yoga//] [//I have four years// //practising it//]
22.	L2: [//I would like to practise yoga sometime//]
23.	L1: [Yes?]
24.	L2: [Yes]
25.	L1: [//I think// //it's good//]
26.	L2: [//I prefer the individual sports like… like gymnast//]
27.	L1: [Gymnastics] uh-huh [//that's an ideal sport// //because I don't like sports// //that require a team//]

Note: The use of [ ] represents AS-unit boundaries; the use of // // represents clause boundaries.

Excerpt 1 shows how L1 and L2 interacted by asking each other the personal questions. It is somewhat surprising that these learners asked each other questions that were not given on the cards, as evident in lines 9 and 18. The evidence that these learners asked each other questions that were not part of the task suggests that "learners make of a task what they will" (Larsen-Freeman, 2009, p. 585; see also Williams, 1999). Even though these questions were not included as part of the task, they triggered the provision of personal information. In general, it can be seen from Excerpt 1 that the learners' clauses were free of errors having an impact on the increase of their accuracy. However, the learners' turns appear to be constructed by short utterances consisting of a small number of words and single clauses and/or AS-units, influencing in turn low fluency and complexity levels. Based upon the evidence that tasks based on personal information involve a low cognitive load (Skehan & Foster, 2008; Tavakoli & Foster, 2011), it is possible that the ease of learners' processing burden, along with their perceptions of how to attain the goal of this task, prompted them to be solely oriented towards accuracy. The suggestion that the learners' perceptions of the task goals and decision-making played an important role during task performance is also borne out by the interactional data during the negotiation task in Pair 1 (see below).

As expected, the narrative task was found to entail more fluent and complex performance than the personal information task. The learner pairs during the narrative task were found to be oriented towards promoting fluency and complexity. As evident in the interactional data, the learners appeared to construct more fluent and complex utterances during the narrative task than during the personal information task. Following the claim that a cognitively demanding task correlates with more complex language (Robinson, 2001), it is possible to suggest that performing and attaining the goal of clearly structured narrative tasks, such as the one included in this study, necessitates more elaboration and subordination which in turn increase fluency and complexity levels. That is, narrative tasks which follow a clear sequence seem to encourage learners to formulate more fluent and complex utterances to achieve their purpose. This finding, however, is contrary to previous studies (Foster & Skehan, 1996; Skehan & Foster 1997; Tavakoli & Foster, 2011), which have suggested that a tight narrative structure promotes accuracy and fluency in language performance. Tavakoli and Foster (2011) explain that more accurate performance was promoted during tight narrative tasks in their study because there was a clear progression in the ordering of images which frees up attentional space and allowed their participants to promote accuracy. In our study, we suggest that the lack of familiarity with narrative tasks required greater attention from the learners to execute the tasks and thus placed a processing burden, compelling them to focus more on fluency and complexity in order to accomplish the goal of the task.

Regarding the negotiation task, we initially categorised this task as a difficult task because the learner pairs first needed to describe the six pictures. They then had to evaluate the visual information, negotiate the six choices and reach an agreement. We thus expected that the negotiation task would encourage learners to achieve high fluency and complexity, and low accuracy because this task demanded more attention in terms of describing and negotiating the choices. However, this was only the case in Pairs 2 and 3. One unanticipated finding was that during the performance of the negotiation task in Pairs 1 and 4, accuracy was promoted at the expense of fluency and complexity. Contrary to expectations, this finding was somewhat surprising because it showed that the learners took on interactional behaviours similar to those during the personal information task. Again, in order to address: "What do the transcribed interactions reveal about the interface between the learners' interactional behaviour and complexity, accuracy and fluency in the three tasks?", it was therefore significant that we return to the interactional data in order to develop a greater understanding of the reasons why accuracy was solely promoted during the negotiation task in Pairs 1 and 4. The following two excerpts show

that the learners adopted interactional behaviours which showed that they went off task to discuss personal information (Excerpt 2), or solely described the pictures (Excerpt 3) in an attempt to possibly ease the cognitive processing load of this negotiation task.

Excerpt 2
Extract from Pair 1 During Negotiation Task

34. L2: [Maybe before //but they don't do it now//] [//they are just in their room// //playing in the softwares or something like that//]
35. L1: [And this is common] haha
36. L2: [This is not common]
37. L1: [No!]
38. L2: [//Could be// //because the young people now don't are so helpful//]
39. L1: [//Yes this could come//] hahah
40. L2: [For final exams!] [But not in the rest of the rest of the year]
41. L1: [Me!]
42. L2: Haha [//you study every day?//]
43. L1: [Yes]
44. L2: [Everyday?]
45. L1: [Yes!]
46. L2: [No way! //Because I need to study//]
47. L1: [How many hours?]
48. L2: I try to study… [//I don't know//] [for example] [//when I don't have class in the morning// //I try to go… or to study something in the morning//] because I think I need to [//I don't know//] [//how to say aprovechar?//] I seize-
49. L1: [//Don't waste your time?//]
50. L2: [//Don't waste…// yes] [and //because I need to have a good grade//] because I have a… [//I don't know beca?//]
51. L1: [//You have a scholarship?//]
52. L2: [Scholarship?] And I need so… I need so-
53. L1: [Good grades?]
54. L2: [Good grades for that yes]
55. L1: [//Do you have a job or just study?//]
56. L2: [No just study] because if I don't… I can't have other…
57. L1: [Activities?]
58. L2: Active… [no other income?]
59. L1: [For your scholarship?]
60. L2: [Yes] [//but I think// //that I need to do something in my free time//]

Note: The use of [ ] represents AS-unit boundaries; the use of // // represents clause boundaries.

As can be seen from Excerpt 2, the learners appeared to be negotiating the visual choices from lines 34 to 40, but without defending their opinions. In lines 34-36, they suggested their opinions concerning some choices following the question asked in this task (i.e., "which picture is most typical of young people today?"). Interestingly, from line 42 to the end of the task, the learners went off task and started discussing personal information concerning studies, grades and a scholarship. The high accuracy levels in Pair 1 during this task may thus be explained by this interactional evidence similar to the personal information task which promoted high accuracy, but low fluency and complexity due to its fewer cognitive processing demands. Taking into consideration that the negotiation task can be cognitively demanding for L2 learners (Foster & Skehan, 1996), we examine the possibility that the learners opted to discuss personal information in order to reduce the cognitive load placed on their attention processing. Learners' agency was also evident in the interactional data of Pair 4 during the negotiation task, as illustrated in Excerpt 3.

Excerpt 3
Extract from Pair 4 During Negotiation Task

3. L2: [//What are the young people in the pictures doing?//] young people.
4. L1: What they're doing… [//what young people used to do?//] haha
5. L2: haha [//Watching movies//]
6. L1: [Uh-huh //studying!//] hahah
7. L2: [//it is a mess//]
8. L1: [Yes!]
9. L2: [//Can you see the mess?//]
10. L1: [Yes! //That could be me//]
11. L2: [Exactly like me] haha
12. L1: [//Playing video games// and //hanging out with… with their homies//]
13. L2: [Homies?] hahah
14. L1: haha
15. L2: [//Playing football?//]
16. L1: [After class]
17. L2: [Yes maybe]
18. L1: [//Working?//]
19. L2: [//It could be working// or //staying in a kitchen// //but he doesn't like his father//] [//it's his father?//] [No!]
20. L1: No maybe it's like… [//I don't know//] [//that is strange//]
21. L2: [His boss? Hahaha or something]
22. L1: [Maybe //but that looks like a house//]
23. L2: he-
24. L1: [//Maybe he's helping his neighbour//] or-
25. L2: [//Or is working probably//] he… he… [//he cooked this// and //then put in a plate// and //then give it to the neighbour or something or a familiar//]

Note: The use of [ ] represents AS-unit boundaries; the use of // // represents clause boundaries.

As previously stated, the negotiation task required the learners to attain two goals: 1) describe six pictures and 2) negotiate the choices shown in these pictures. In Excerpt 3, line 3 shows that the learners started describing the pictures. This similar pattern can be seen throughout this 78-turn interaction without the learners engaging in interactional work to negotiate the pictures and defend their opinions—the most cognitively and interactionally demanding part of the task. It then seems possible that describing pictures involves less cognitive processing than negotiating choices and defending an opinion. This suggestion is supported by the transcribed interactional data which shows that the learners relied on the visual characteristics of the pictures and sometimes relate these characteristics to their experiential knowledge and/or immediate context (see turns 9-14) in order to formulate their oral production. This interactional behaviour in Pair 4 possibly allowed them to ease the cognitive burden and then promote accuracy, compromising the complexity and fluency of the learners' utterances. For pedagogical value, the relevance of this finding is threefold. Firstly, it suggests that during cognitively demanding performance, learners, free from the normal control exercised by teachers, may approach and perform tasks in a matter that reduces the cognitive burden, prioritising certain performance areas and thus yielding unexpected learning performance outcomes. Secondly, these learners' orientations and decisions during task performance may compel them to adopt interactional behaviours which in turn influence the CAF dimensions, again, in unpredictable ways. This outcome is contrary to that of Tavakoli and Foster (2011), who claim that L2 performance is sensitive to task design features, at least for narrative tasks, and that this influence can be clearly predicted. However, the interactional data showed that the CAF dimensions follow different patterns than those reported in previous studies. Thirdly, grounded in the transcribed interactional evidence during the negotiation task in Pairs 1 and 4, and the claim that "learners make of a task what they will"

(Larsen-Freeman, 2009, p. 585), we put forward the argument that learners' agency (i.e., perceptions, goals, orientations, and decision-making) is a factor which also plays an important role in task performance and thus the CAF dimensions.

In general, the findings of this study show the learners' inability to promote the three CAF dimensions simultaneously during the performance of the three tasks which resemble the teaching and learning activities that they commonly carry out to practise speaking. We believe that these findings suggest important pedagogical implications since in EFL classrooms, tasks for practising and assessing speaking are commonly expected to promote the development of both meaning (fluency) and form (accuracy and complexity). However, the interactional evidence from this study shows that fluency and accuracy, and complexity and accuracy cannot be promoted simultaneously during any of the three tasks. This, in turn, reveals the possibility that we have expected too much from learners' language performance, and probably assessed it in unfair and unrealistic ways. Obviously, this suggestion requires more investigation of the interplay between task design characteristics, the CAF dimensions, learners' agency and uncontrolled contexts so that we are able not only to bridge the difficult gap between language educational research discourse and classroom interactions, but also to design and choose task design characteristics which make realistic processing demands that are beneficial for promoting learners' language performance.

Conclusions and further research areas

This exploratory study set out to understand the effects of the design characteristics of three (personal information, narrative and negotiation) tasks on the CAF of four learner pairs during uncontrolled interactions in two EFL classrooms. The study was initially motivated by the increasingly large amount of experimental research which has investigated the impact of tasks on the CAF dimensions under controlled conditions. Notwithstanding its exploratory nature, this study has been one of the first attempts to thoroughly examine the interplay between the three tasks and the learners' CAF from naturalistic lenses.

The findings of this study showed that the design characteristics of the three tasks created a dynamic interaction between the CAF dimensions, and trade-off effects between accuracy and fluency, and accuracy and complexity. The findings further suggested that when tasks are perceived as difficult, learners may decide to approach them in a way that eases the cognitive processing burden (e.g., relying on personal information or experiential knowledge), influencing in turn their interactional behaviour and CAF in unpredictable ways. In general, therefore, these findings reveal the need to centre research on natural classroom interactions where several, yet interrelated, (instructional, interactional and cognitive) factors come into play. This would allow us to develop a clearer understanding of the effects of task characteristics on learners' language performance, and how these instructional materials can promote their language performance entirely. Once we are informed of this, we would begin to reconsider the way speaking is practised and evaluated in EFL classrooms.

As stated in the beginning of this paper, our aim was not to include a full discussion of all the factors that influence language performance and thus the CAF dimensions. This statement in turn reveals, to some extent, the limitations of the study because the number of factors that may influence language performance is far more extensive. This requires further investigation into the factors that impact on learners' language performance and thus CAF dimensions in uncontrolled classroom interactions. It would thus be interesting to examine in greater depth how learners' agency and cognitions have effects on the interplay between task performance and the CAF dimensions. However, we believe that the study has enhanced our understanding of how the

characteristics of three tasks and learners' decision-making concerning their interactional behaviour heavily influenced their language performance in a dynamic fashion during interactions that took place in real EFL classrooms whose structure and dynamics were not modified.

References

Bamanger, E. M. & Gashan, A. K. (2015). The effect of planning time on the fluency, accuracy, and complexity of EFL learners' oral production. *Journal of Educational Sciences, 27*(1), 1-15. Retrieved from https://jes.ksu.edu.sa/sites/jes.ksu.edu.sa/files/attach/bhth_brhym_bmnqr_wakhrwn.pdf

Denzin, N. & Lincoln, Y. (2005). (Eds.). *The Sage handbook of qualitative research* (3rd ed.). London: SAGE Publications.

Ellis, R. & Barkhuizen, G. (2005). *Analysing learner language*. Oxford: Oxford University Press.

Ellis, R. (2009). The differential effects of three types of task planning on the fluency, complexity, and accuracy in L2 oral production. *Applied Linguistics*, *30*(4), 474–509. Retrieved from http://www.academypublication.com/ojs/index.php/jltr/article/viewFile/jltr060612971304/456.

Foster, P. (1998). A classroom perspective on negotiation of meaning. *Applied Linguistics*, *19*(1), 1–23. DOI: 10.1093/applin/19.1.1

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

Foster, P., & Skehan, P. (1999). The influence of source of planning and focus on task-based performance. *Language Teaching Research*, *3*(3), 215-247. doi: https://doi.org/10.1177/136216889900300303

Foster, P., & Skehan, P. (2013). Anticipating a post-task activity: The effects on accuracy, complexity, and fluency of second language performance. *Canadian Modern Language Review, 69*(3), 249-273. Retrieved from https://muse.jhu.edu/article/515375/pdf

Foster, P., Tonkyn, A. & Wigglesworth, G. (2000). Measuring spoken language: A unit for all reasons. *Applied Linguistics*, *21*(3), 354-375. **doi:** https://doi.org/10.1093/applin/21.3.354

Garcia-Ponce, E. E. (2017). Effects of task characteristics on learners' fluency, complexity and accuracy during EFL interactions: Implications for speaking practice. The Journal of Language Teaching and Learning, 7(2), 70-89. Retrieved from: http://www.jltl.org/index.php/jltl/article/view/795/150

Gheisari, N. (2017). Private speech in teacher-learner interactions in an EFL context: A sociocultural perspective. *Iranian Journal of Language Teaching Research, 5*(2), 53-74.

Holliday, A. (2002). *Doing and writing qualitative research*. Thousand Oaks, CA: Sage Publications.

Kawauchi, C. (2005). The effects of strategic planning on the oral narratives of learners with low and high intermediate proficiency. In R. Ellis (Ed.), *Planning and task performance in a second language* (pp. 143–164). Amsterdam/Philadelphia: John Benjamins.

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

Larsen-Freeman, D. (2006). The emergence of complexity, fluency, and accuracy in the oral and written production of five Chinese learners of English. *Applied Linguistics, 27*(4), 590-619. doi: https://doi.org/10.1093/applin/aml029

Larsen-Freeman, D., & Long, M. H. (1991). *An introduction to second language acquisition research*. London and New York: Longman.

Lotfipour-Saedi, K. (2015). Suggestions toward some discourse-analytic approaches to text difficulty: with special reference to 'T-unit configuration' in the textual unfolding. *Iranian Journal of Language Teaching Research, 3*(1),1-18. Retrieved from http://www.urmia.ac.ir/sites/www.urmia.ac.ir/files/article1.pdf

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

Robinson, P. (2001). Task complexity, cognitive resources, and syllabus design: A triadic framework for examining task influences on SLA. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 287–318). Cambridge: Cambridge University Press.

Rosmawati, R. (2014). Dynamic development of complexity and accuracy. *Australian Review of Applied Linguistics*, *37*(2), 75-100. doi: 10.1075/aral.37.2.01ros

Sadeghi, K. (2016). An Interview with Professor Diane Larsen-Freeman. *Iranian Journal of Language Teaching Research, 4*(2), 139-143.

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

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

Skehan, P. (2009). Modeling second language performance: Integrating complexity, accuracy, and lexis. *Applied Linguistics,* 30(4), 510-532. doi**:**https://doi.org/10.1093/applin/amp047

Skehan, P., & Foster, P. (1997). Task type and task processing conditions as influences on foreign language performance. *Language Teaching Research*, *1(3)*, 185–211. doi: https://doi.org/10.1177/136216889700100302

Skehan, P., & Foster, P. (2008). Complexity, accuracy, fluency and lexis in task-based performance: 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). Brussels, Belgium: KVAB.

Tabari, M. A. (2016). The effects of planning time on complexity, accuracy, fluency, and lexical variety in L2 descriptive writing. *Asian-Pacific Journal of Second and Foreign Language Education*, *1*(1), 1-15. doi: 10.1186/s40862-016-0015-6

Tavakoli, P. & Foster, F. (2011). Task design and second language performance: The effect of narrative type on learner output. *Language Learning, 61*(1). 37-72. doi**:** 10.1111/j.1467-9922.2011.00642.x

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

Williams, J. (1999). Learner-generated attention to form. *Language Learning*, *49*(4), 583-625. doi**:** 10.1111/j.1467-1770.2001.tb00020.x

Wolfe-Quintero, K., Inagaki, S. &. Kim, H.-Y. (1998). *Second language development in writing: Measures of fluency, accuracy, and complexity.* USA: University of Hawaii Press.

Yuan, F. & Ellis, R. (2003). The effects of pre-task planning and on-line planning on fluency, complexity and accuracy in L2 monologic oral production. *Applied linguistics, 24(*1), 1-27. doi**:** https://doi.org/10.1093/applin/24.1.1

Edgar Emmanuell holds an MA in Applied Linguistics (Universidad Autónoma del Estado de México, Mexico), and a PhD in English Language Teaching and Applied Linguistics (University of Birmingham, UK). His research interests centred on the interplay between classroom interactions and teachers' and learners' beliefs. He teaches in the BA in TESOL and MA in Applied Linguistics of English Language Teaching at the Departamento de Lenguas, Universidad de Guanajuato, Mexico.

Irasema Mora Pablo holds an MA in Applied Linguistics (Universidad de las Américas-Puebla) and a PhD in Applied Linguistics (University of Kent, UK). She coordinates the the Master's in Applied Linguistics of English Language Teaching at the Universidad de Guanajuato. She is a member of the National System of Researchers (Sistema Nacional de Investigadores) and her research interests are bilingual studies, identity and -nativespeakerism.

M. Martha Lengeling holds a Master in TESOL (West Virginia University, USA) and a PhD in Language Studies (Kent University, UK). She teaches in the BA TESOL, the MA in Applied Linguistics for English Language Teaching, and the ICELT at the *Universidad de Guanajuato*. She is a member of the National System of Researchers (*Sistema Nacional de Investigadores*) as well as the Editor-in-Chief of the *MEXTESOL Journal*. Her research interests include narrative inquiry, teacher development, identity and emotions.

Troy Crawford holds a MA TESOL (University of London), and a PhD in Language Studies (University of Kent, UK). His research focuses on second language writing and he has presented his work in Mexico, England, France, Japan, Canada, India and the United States. He is a professor of language studies at the University of Guanajuato. He is a member of the National System of Researchers.

[1] For the purpose of this study, we adopt Tavakoli and Foster's (2011) definition of a task which is "anything that classroom language learners do when focusing their attention primarily on what they want to say to others or what others are trying to say to them" (p. 39).