The Effect of Using the Native Language as a Pedagogic Intervention on Iranian EFL Learners’ Complexity of English Oral Productions

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ABSTRACT: The present study aims at investigating the effect of using the native language as a pedagogic intervention on the complexity of Iranian EFL learners’ English oral productions. A sample of 39 male and female adult English learners of B1 and B2 CEFR proficiency levels was recruited to participate in this study. They were placed into two intact classes (i.e., as already determined by the institution’s authorities) and each class was randomly chosen to serve as either the experimental (EG) or the control (CG) group. Improving the learners’ speaking ability was the focus of both groups while only the EG was asked to orally produce the equivalents of Persian sentences presented to them. In order to measure the lexical and grammatical complexity of oral productions of the learners, two parallel speaking tests of IELTS 10, in the form of two oral interviews, were used as pre- and post-test oral interviews. A MANCOVA test was run to compare the performance of the two groups in terms of their lexical and grammatical complexity after the treatment. Results indicated that the EG’s lexical and grammatical complexity improved as compared to the CG, and the improvement in both of these variables was statistically significant.

Key words: spoken English, Iranian EFL learners, L2 grammatical complexity, L2 lexical complexity, native language.

El efecto del uso de la lengua nativa como intervención pedagógica en la complejidad de las producciones orales en inglés de los estudiantes iraníes de inglés como lengua extranjera.

RESUMEN: El presente estudio tiene como objetivo investigar el efecto del uso de la lengua materna como intervención pedagógica en la complejidad de las producciones orales en inglés de los estudiantes iraníes de inglés como lengua extranjera. Para participar en este estudio se reclutó una muestra de 39 aprendices de inglés adultos masculinos y femeninos de nivel de competencia B1 y B2, según el MCERL. Se les distribuyó en dos clases intactas (es decir, según lo determinado por la institución) y los grupos fueron elegidos al azar para servir como grupo experimental (GE) o control (GC). La mejora de la capacidad de expresión de los estudiantes fue el foco principal en ambos grupos, mientras que solo se le pidió al GE que produjera oralmente los equivalentes de las oraciones persas que se les presentaron. Para medir la complejidad léxica y gramatical de las producciones orales, se utilizaron dos pruebas de habla paralela de IELTS 10, en forma de dos entrevistas orales, como entrevistas orales previas y posteriores a la prueba. Los resultados de una prueba MANCOVA indicaron que la
La complejidad léxica y gramatical del GE mejoró en comparación con el GC, y la mejora en ambas variables fue estadísticamente significativa.

Palabras clave: inglés hablado, los estudiantes iraníes de inglés como lengua extranjera, complejidad gramatical en L2, complejidad léxica en L2, lengua materna.

1. INTRODUCTION

Among the four language skills learners are expected to have mastery over–listening, speaking, reading, and writing–the second one, speaking, is considered to be the most demanding for the teachers and the most popular for the learners (Aleksandrzak, 2011). That is why many of the authorities in this area have focused their attention on creating and testing various strategies to improve the oral production ability of the learners. Hymes (1972, as cited in Pena & Onatra, 2009, p. 2) defines the oral skill as “the capacity to communicate effectively within a particular speech community that wants to accomplish its purposes”.

Speaking is intensively required to be developed in order for EFL/ESL (English as a Foreign Language/English as a Second Language) learners to interact and communicate effectively in various contexts and situations. Many scholars and experts in this field assume that the ability to communicate orally is equal to knowing the given language, as speaking is the main means of human communication (Lazarton, 2001). That is why acquiring L2 oral proficiency is viewed as one of the most challenging tasks the language learners are supposed to do, and to the teachers and practitioners it has been crucial to help their students acquire the oral proficiency in the target language. According to Payne and Ross (2005, p. 35), “expressing oneself effectively and appropriately during oral conversational exchange with native or expert speakers of a target language represents for many learners and teachers the ultimate goal of language instruction”.

As different studies in Applied Linguistics indicate, basic dimensions of second language performance, proficiency and development include three important components which can contribute to the speakers’ oral productions; namely, complexity, accuracy and fluency (CAF) (Ellis, 2003, 2008; Ellis & Barkhuizen, 2005; Skehan, 1998). According to Housen and Kuiken (2009, p. 1),

…....., complexity, accuracy and fluency (CAF) have figured as major research variables in applied linguistic research. CAF have been used both as performance descriptors for the oral and written assessment of language learners as well as indicators of learners’ proficiency underlying their performance; they have also been used for measuring progress in language learning.

Accuracy (or correctness), which is considered as the oldest, most transparent and most consistent construct of these three elements, refers to the amount of deviancy from a particular norm of language speech (Hammerly, 1991; Wolfe-Quintero et al., 1998). As the name implies, this criterion deals with how correct the productions of a speaker may be and views the deviancies as errors. On the other hand, fluency normally refers to the speaker’s general language proficiency, and might be characterized by perceptions of ease, eloquence and smoothness of productions in terms of their oral and written statements (Chambers,
However, the first component of oral proficiency, which is the main focus of this study, is complexity. Oral complexity, which was first added to the oral variables by Skehan (1998), refers to the variation by which the speakers can produce the structures and lexicon. Ellis (2003, p. 340) defines oral complexity as “[t]he extent to which the language produced in performing a task is elaborate and varied”. Wolfe-Quintero et al. (1998, p. 4) view complexity as “the scope of expanding or restructured second language knowledge”. In order to study this scope, it is necessary to see its two main aspects—grammatical and lexical complexity. In other words, the speakers’ oral productions should be investigated both regarding the structural variability and the variability related to the range of lexicon they use in their speech.

What lexical complexity represents is the variability of the lexical items used by the speakers in their oral productions and speech (Lahmann et al., 2015). Undoubtedly, the range of vocabulary that the speakers are able to use in their productions is very determining in showing how proficient they are in their speaking and how qualified they are in employing words of different frequency levels and familiarity. Hence, vocabulary richness, or lexical diversity, is an important measure of how language speakers utilize their active vocabulary (Richards & Malvern, 1997).

The second component of oral performance complexity is syntactic or grammatical complexity, which deals with how diverse the speakers’ productions are in terms of the structures they use in their speech. Syntactic complexity refers to the range and the degree of sophistication of the forms that appear in language production (Ortega, 2003). This complexity can be observed in language with respect to how varied and sophisticated the production units or grammatical structures are (Foster & Skehan, 1996; Ortega, 2003; Wolfe-Quintero et al., 1998). According to Lu (2010, p. 1), “it has been considered an important construct in second language teaching and research, as development in syntactic complexity is an integral part of a second language learner’s overall development in the target language”. Park (2017, p. 1) found that researchers have assumed that learner language becomes more complex as learners progress and have viewed increased complexity as an indication of language development or proficiency. Accordingly, establishing and scrutinizing measures of syntactic complexity has become common.

2. Studies on the use of L1 in L2 instruction

Given the importance of CAF components, a surging influx of researchers and scholars have attempted to find ways through which L2 oral proficiency of language learners can be improved. Different types of strategies and techniques have been employed and tested in an attempt to find the best and most efficient ways which can contribute to achieving this goal. Despite its opponents, who believe that using the mother tongue in the L2 classroom by either the teacher or the learners can have adverse effects on the oral proficiency of the learners (Chaudron, 1988; Krashen, 1982; MacDonald, 1993), using or at least judicious use of the learners’ first language as a useful way of facilitating learning process, decreasing the
stress level of the learners, clarifying the vague notions and eliciting the requested statements has been favored and approved by many practitioners and scholars in this field (Atkinson, 1995; Auerbach, 1993; Cook, 2001; Harbord, 1992; Kang, 2008; Pan, 2010; Rolin-Ianziti & Brownlie, 2002; Storch & Wigglesworth, 2003; Swain & Lapkin, 2000; Turnbull, 2001; Van Lier, 1995; Weschler, 1997; Ying et al., 2018).

Results taken from a variety of investigations on oral participation strategies indicate that L1 use has been one of the strategies that elicited oral participation between teachers and students and the teacher’s use of L1 to explain vocabulary, communicate tasks, and encourage students to speak in English has enabled them to continue communicating in English (Cipriani, 2001). Also, it has been shown that thinking in the learners’ L1 results in the production of more elaborate content, and in situations where the mother tongue was judiciously employed by the teacher the learners always had more ideas and a greater amount of clear thinking in their L1 (Cohen & Brooks-Carson, 2001). Additionally, given that learners’ use of first language can serve as an important strategy to memorize words, idioms, grammar, and sentence structures, it can act as a good tool to improve the oral complexity of their productions in terms of both the structures they use and the range of lexical items they employ in their speech (Greggio & Gil, 2007).

Moreover, studies comparing the efficiency of different methods for learning suggest that in some situations, an L1 translation can be the most effective strategy. The main reason for this could be clarity, shortness and familiarity of L1 translations (McKeown, 1993). Combining an L1 translation with the use of word cards for the basic learning of vocabulary can lead to learners’ having a very effective strategy for speeding up vocabulary growth (Nation, 2001, pp. 296-316). Nation held that none of the numerous criticisms raised of learning L1-L2 word pairs are based on research and reversely, the direct learning of L2 vocabulary using word cards with their first language translations is a very effectual way of learning. Later in the same study, Nation viewed the first language in the classroom as important as using pictures or real objects without which learning cannot be possible and disregarding it would be totally impossible.

In a similar vein, Lameta-Tufuga (1994) investigated the effects of having learners discuss a task in their L1 before they had to do it in writing in the second language. The use of the first language in discussions of the task indicated some interesting results. First, the learners were all very actively involved in dealing with the ideas. Second, the first language discussion involved a great deal of the second language vocabulary which was used in the later task. Therefore, the discussion not only helped learners to master the content, but it also helped them achieve a good mastery over the relevant L2 vocabulary in a very supportive L1 context.

On the other hand, Wharton (2007) believed that using the first language to save time and make life easier for both learners and teachers may not be an effective strategy for SLA (Second Language Acquisition); however, this does not mean that the mother tongue has no role to play in the foreign language learning process. His study indicated that it would be very effectual to use the native language to raise the students’ awareness about the similarities and differences existing between the first and target languages and to help them find their unique ways to express themselves in the target language.

Regarding English for Specific Purposes (ESP) courses, Fakhrzadeh (2009) concluded that translation, if applied appropriately, can make a good contribution to the acquisition of
the foreign language by the students in all levels and especially in tertiary levels. She found the first language quite useful in language classrooms for explaining grammar and tasks to the learners, providing feedback to them, and checking their comprehension. She also found translation to promote autonomy among the learners, let the learners feel the success and raise their consciousness at different levels.

Ostovar-Namaghi and Norouzi (2015) in their study elaborated on the fact that the reasons behind the rejection of the first language in the classroom by scholars like Berlitz was by no means empirically and theoretically founded; hence, such statements were completely subjective evaluations without any empirical basis. Their results showed that judicious use of the native language in foreign language teaching is not only something the teachers should not be afraid of, but also they must favor it warmly in their class and be allowed to use both intra- and cross-lingual strategies to express themselves in the target language. In another study, Lahmann et al. (2015) investigated the factors affecting grammatical and lexical complexity of long-term L2 speakers’ oral proficiency and the use of the L1 (German) at work and found that the L1 can have a significantly positive effect on the lexical complexity of learners’ oral productions.

Looking at another equally important aspect of oral proficiency, listening comprehension, Lee and Levin (2018) investigated the interaction effects between teachers’ choice of language while explaining vocabulary and L2 learners’ proficiency level on the learning of phrasal verbs and listening comprehension in a meaning-focused listening activity. By assigning intermediate and advanced L2 learners into two treatment groups (use of L1 for teaching vocabulary vs. just L2 use) and one control group (no instruction about target vocabulary), the researchers found that explicit teaching of vocabulary was beneficial to all learners while teachers’ use of L1 benefited intermediate learners more than their advanced counterparts. Hence, at the end of the experiment, both intermediate and advanced learners gained similar levels of vocabulary learning and listening comprehension.

In the Chinese EFL context, Li (2018) strived to study the effect of first language on Initiation-Response-Feedback (IRF) cycle, which is mainly characteristic of teacher-fronted classrooms. Using video recordings in a senior high school, the researcher gathered the necessary data and analyzed them through conversation analysis. The findings of the study indicated that the use of L1 in the IRF cycle could lead to opening up dialogue and bringing more target language into the conversation. Accordingly, the researcher claimed that the L1 used in the IRF cycle could serve as a mediating tool contributing to the acquisition of the target language.

More recently, McManus and Marsden (2019) examined the effects of different types of Explicit Instruction (EI) and comprehension practice on French learners’ use of verbal morphology. Using three experimental and one control groups, they also intended to investigate whether additional EI in the learners’ native language (i.e., English) affected their L2 oral production. The results of their study indicated that additional EI in the L1 improved the accuracy of learners’ L2 oral productions in both immediate and delayed posttests. They attributed this finding to the learners’ increased awareness of similarities and differences between the L1 and the L2 regarding form-meaning mappings.

Apart from all the above-mentioned justifications, students’ L1 may be employed by the teachers to remove one of the important obstacles in foreign language learning contexts, known as the avoidance strategy. As put by Houshyar and Talebinezhad (2013, p. 238),
Second or foreign language learners resort to avoidance strategy when they confront a communicative difficulty to prevail over this communicative problem. Typically, a target language word, structure or sometimes a sound thought to be difficult to learners is avoided; instead, learners will use an expression or a structure which they find easier.

That being so, one of the solutions suggested to overcome this problem is the use of the learners’ first language, which may play an important role in helping teachers make learners produce the complex structures and lexicon in their sentences when producing target language sentences (Koucka, 2007). That is, using the mother tongue by the teacher as a request for producing the target language form on the learners’ behalf might minimize the avoidance strategy. In this way, learners may have no way out but to produce the exact word or structure asked by the teacher; therefore, they will be able to recognize the minute differences existing between different lexicon and arrangement of words to produce some specific structures (Anton & DiCamila, 1998; Cohen & Brooks-Carson, 2001; Ellis, 1994; Gunn, 2003).

A thorough review of the literature suggests that no study has so far attempted to use Iranian EFL learners’ native language (i.e., Persian) as a teaching strategy to help them improve the complexity of their oral productions, which highlights that a dire need is felt to examine the use of the native language from this new perspective. Hence, the current study may serve properly to fill this lacuna and encourage more investigations on this topic.

3. DESIGN OF THE STUDY AND RESEARCH QUESTION

In order to systematically investigate the effect of using the native language as a pedagogic intervention on the complexity of Iranian EFL learners’ English oral productions, a quasi-experimental design was adopted. As rightly argued by Ary et al. (2019), because of diverse reasons, in many situations in educational research, the researcher may not be allowed to randomly place the students in different classes and hence, s/he may resort to a quasi-experimental design. In this design, lack of full control may be considered a threat to the validity of the study; however, they are worth doing in that they “permit researchers to reach reasonable conclusions even though full control is not possible” (Ary et al., p. 260). In the current study, although the researchers were not allowed to randomly assign the participants into different groups, they randomly assigned the two classes to the experimental (EG) and control (CG) groups which underwent a four-month period of treatment which will be elaborated in more detail along the following lines. Hence, the study attempted to seek answers to the following research question:

Is there any difference between the performance of those students who were taught English using their mother tongue and that of those who were taught English without the use of their mother tongue in terms of

a. the lexical complexity of their oral productions?
b. the grammatical complexity of their oral productions?
4. Method

4.1. Participants

The participants of this study were 39 adult English learners at a private foreign language institution whose proficiency levels (as determined by the written and oral placement tests administered by the institution) were B1 and B2 based on the CEFR (Common European Framework of Reference for Languages). These people were selected based on their availability to the researchers, and they had been already placed into two separate classes by the institution. They constituted the CG and the EG in this study. To do the study, one class was randomly assigned as the CG (N = 20) and the other one as the EG (N = 19). The participants were among the adult male and female language learners who were seeking to improve their speaking ability. These learners attended intensive conversation courses twice a week (8 hours). The age range of the participants was from 18 to 45 years old.

4.2. Treatment

In this study, Researcher B, who was the teacher in both the EG and CG, implemented the treatment in the EG in two phases. First, when teaching the book conversations and paraphrasing the dialogues, he chose some sentences from the text and asked the learners to produce the English equivalents of the Persian sentences read out by him. For example, after paraphrasing, he chose the question “What do you think of kayaking?” and asked the learners to produce the English equivalent of his Persian sentence “næzæret dær morede qa:yeq sæva:ri cie?” (The English letters used in the transliteration of the Persian texts are based on Koutlaki, 2002). The learners were expected to produce “What do you think of kayaking?” After eliciting the English equivalents for the Persian sentences, he changed some words as well as the grammatical structures of the Persian sentences and asked the learners to produce the English equivalents of those new sentences as well. For instance, in order to ask for a lexical change, he asked the learners to say “næzæret dær morede moj sæva:ri cie?” (What do you think of surfing?) or for eliciting a grammatical change, the teacher asked the learners to say the English equivalent for this sentence “næzære ba:ra:dæret dær morede qa:yeq sæva:ri cie?” (What does your brother think of kayaking?). As another example, to answer the above question in the text, the character in the book might say “I think it’s interesting.” The teacher asked the learners to produce the English equivalent for “fekr mikonæm ja:leb ba:s’e” (I think it’s interesting) and further, the learners were asked to produce the English equivalents for Persian sentences which could state sentences like “fekr mikonæm hæyæja:n ængiz ba:s’e” (I think it’s exciting) or “fekr mikonæm ca:les’a:ær ba:s’e” (I think it’s challenging), through which they had to produce terms which were included in their book units but were not commonly used by novice speakers, i.e., ‘exciting’ and ‘challenging’. They were also asked to produce sentences such as “u fekr mikone xaeste konænde ba:s’e.” (He thinks it’s boring) or “fekr mikony ja:leb ba:s’e?” (Do you think it’s interesting?) or some more complex sentences like “ki fekr mikone moj sæva:ri xaætærna:ke” (Who thinks surfing is dangerous?), in which they had to produce sentences using more complex structures which are rarely used by learners at these levels. In this way, the learners were asked to produce sentences with different lexical and structural patterns. In this phase,
only the teacher used the native language, with the learners not being allowed to use it. For the following sessions and as the second phase of the treatment, showing some power point slides containing Persian sentences created based on the book conversations to the students, the teacher asked them to take turns and produce the English equivalents of those sentences. For example, the first student was asked to read the first Persian sentence, which was “næzæret dær morede sækhre næværdy cie?” silently and produce its English equivalent (What do you think of rock climbing?) orally. In this phase, nobody used the first language orally and the Persian sentences were only read silently by the learners and then changed to English equivalents and produced orally. In this way, by using the native language, the researchers attempted to elicit diverse words and structures from the students, and then examined the effect of this intervention on their performance at the end of the instruction. The CG was taught the same content and materials using just English in their classes.

4.3. Instruments

Two parallel speaking tests of IELTS 10 in the form of two oral interviews were used in this study to evaluate the target points in the participants’ speaking ability, that is, the lexical and syntactic complexity of their speech. As a standard test, the validity and reliability of the IELTS speaking module have been confirmed in previous studies (e.g., Li, 2019; Quaid, 2018). An attempt was made to choose two parallel forms of the IELTS speaking module based on available practice tests. The IELTS speaking module has three sections which try to evaluate the learner’s ability to speak. In the first section, which takes 4 to 5 minutes, examinees are asked to introduce themselves and confirm their identity. Then, they are asked some general questions on familiar topics, for example, home, family, work, studies, and interests. The second section, which takes about 4 minutes, is called individual long turn, and here, examinees are given a task card which asks them to talk about a particular topic, including points to use in their talk. They are given one minute to prepare and make notes. They are then asked to talk for 1-2 minutes on the topic and are not interrupted during this time. The examiner will then ask them one or two questions on the same topic. In the third section of the IELTS speaking test, or two-way discussion section, which takes about 5 minutes, the examiner will ask them further questions which are connected to the topic of Part 2. These questions are designed to give them an opportunity to discuss more abstract issues and ideas.

The researchers (i.e., Researcher A and Researcher B) tried to choose two topics which were general and interesting to the students and also closely related to each other, as well as to the content of the course. For example, in the pre-test, after introducing themselves, the learners were asked to speak about their ideas regarding traveling and free time activities, and they were also expected to describe a child around them. Then, for the post-test, the topic of weekend and how they spend it was chosen, on the assumption that it was related to the pre-test topic. The interviewees were also asked to describe a person with some skills and talk about different jobs and their salaries.

4.4. Data collection and analysis procedures

Data collection was carried out in two sessions, one for the pretest oral exam and another one for the post-test oral exam. In the first phase of data collection, all participants
were asked to take an oral pretest taken from IELTS 10. This session, which was held in their own classroom and in their first session of class, took around 2 hours for each group (EG and CG). The instructor explained the IELTS test steps and how they were supposed to take the test and answered their questions and concerns regarding the exam. The learners were then interviewed one by one. Each interview took 5 to 10 minutes and was recorded by a voice recorder to be transcribed and analyzed later. The participants were already aware that their voices would be recorded and had no problem with that. The second interviews, post-test interviews, took 5 to 10 minutes and were recorded by the same voice recorder. After each phase, the researchers transcribed the interviews.

In the data analysis part of the study, the interviews which had been recorded and transcribed were analyzed using CLAN (Computerized Language Analysis) software, which calculated the lexical complexity of utterances. The syntactic complexity of the learners’ productions was calculated by dividing the number of clauses by the number of AS units. The obtained ratio indicated the syntactic complexity in their utterances. For example, the utterance “he found a wallet” produced by a participant was calculated to have one clause and one AS unit. So, the grammatical complexity for this utterance was calculated as $1/1=1$, or the utterance “He couldn’t believe he had the winning ticket” was considered as having two clauses which were produced in one utterance, and the grammatical complexity for this utterance was calculated as $2/1=2$. To ensure the reliability of this coding procedure, intra- and inter-coder reliabilities were checked. That being so, Researcher B, after coding the data once, coded a randomly chosen sample of them a couple of weeks later. The correlation between the two codings constituted intra-coder reliability, which turned out to be .99. As for inter-coder reliability, he gave a randomly selected sample of the data to one of his classmates who had done the same codings before and was an expert in this regard and asked her to code them. The correlation between these two sets of codes was .98, which was high and acceptable.

To analyze these results, MANOVA was run to examine any possible differences between the EG and the CG in terms of the complexity of their oral productions before the treatment. Since the participants in the two groups were different in terms of their grammatical complexity before the treatment, for the post test, a MANCOVA was run in which grammatical complexity was considered as the covariate.

4.5. Ethical considerations

At the outset of the study, first, the researchers sought written consent from the institution and then, the participants were asked to sign a consent form expressing their willingness to partake in the study. Meanwhile, the objectives of the study were explained to the participants in detail and all of them willingly acceded to cooperating with the researchers. They were also fully aware that their interviews were being recorded; however, they were assured that their privacy would not be breached and the information they shared would only be used for the purposes of the study. Furthermore, they had the right to withdraw and not participate further at any stage of the study. They were also reassured that their (non)participation would not have any effects on either their grades or relationship with their teacher.
5. RESULTS AND DISCUSSIONS

5.1. Descriptive statistics

In this section, descriptive statistics including mean and standard deviation values for both EG and CG regarding the grammatical and lexical complexity of the learners’ oral productions before and after the treatment are reported.

Table 1. Descriptive statistics before the treatment

| GROUPS | N  | LEXICAL MEAN | LEXICAL SD | GRAMMATICAL MEAN | GRAMMATICAL SD |
|--------|----|---------------|------------|------------------|----------------|
| EG     | 19 | 47.22         | 16.54      | .45              | .092           |
| CG     | 20 | 40.98         | 16.84      | .54              | .141           |

As Table 1 indicates, prior to the treatment, the mean of the EG (M=47.22, SD=16.54) regarding the lexical complexity of their oral productions was higher than that of the CG (M=40.98, SD=16.84). However, the mean of this group regarding the grammatical complexity of their oral productions (M=.45, SD=.092) was lower than that of the CG (M=.54, SD=.141).

Table 2. Descriptive statistics after the treatment

| GROUPS | N  | LEXICAL MEAN | LEXICAL SD | GRAMMATICAL MEAN | GRAMMATICAL SD |
|--------|----|---------------|------------|------------------|----------------|
| EG     | 19 | 59.15         | 14.34      | .88              | .23            |
| CG     | 20 | 42.92         | 15.73      | .65              | .20            |

As for after the treatment (Table 2), the mean of the EG regarding the lexical complexity of their oral productions (M=59.15, SD=14.34) was higher than that of the CG (M=42.92, SD=15.73). In a similar vein, the mean of the EG regarding the grammatical complexity of their oral productions (M=.88, SD=.23) was higher than that of the CG (M=.65, SD=.20) too. In order to see whether these differences were statistically significant, inferential statistics were performed to compare the two groups’ performance before and after the application of the treatment.

5.2. The effect of L1 use on the lexical and grammatical complexity of L2 oral productions

In order to check whether the two groups were homogenous in terms of grammatical and lexical complexity of their oral productions before the treatment, a MANOVA (Multivariate analysis of variance) test was run. Prior to running the test itself, MANOVA assumptions were checked. All assumptions, except for the assumption of equality for grammatical com-
plexity (Levene’s test = 0.021 < 0.05), were met (Mahalanobis distance value = 5.805 < 13.82; Box’s test = 0.379 > 0.001; Levene’s test for lexical complexity = 0.948 > 0.05). The results of the MANOVA test, hence, confirmed that there was a statistically significant difference between the two groups in terms of the complexity of their oral productions, $F(2, 36) = 4.470, p = .018$, Wilk’s Lambda = .801, eta squared = .199.

That being so, it was found that the two groups were not homogenous in terms of grammatical complexity before the treatment. Therefore, in order to control this pre-existing difference, grammatical complexity was considered as the covariate in the post-test and a MANCOVA test was run to determine the effect of the treatment on the two groups’ L2 oral complexity. Before running this test, its assumptions were checked to make sure they were all met.

All MANCOVA assumptions were met (Mahalanobis distance value = 8.503 < 13.82; Box’s test = 0.398 > 0.001; Levene’s test = 0.555, 0.485 > 0.05), which let the researchers proceed to run the MANCOVA test itself.

Table 3. Results of the MANCOVA test

| EFFECT               | VALUE | F     | HYPOTHESIS df | ERROR df | SIG. | PARTIAL ETA SQUARED |
|----------------------|-------|-------|---------------|----------|------|---------------------|
| Pillai’s Trace       | .336  | 8.863b| 2.000         | 35.000   | .001 | .336                |
| Wilks’ Lambda        | .664  | 8.863b| 2.000         | 35.000   | .001 | .336                |
| Hotelling’s Trace    | .506  | 8.863b| 2.000         | 35.000   | .001 | .336                |
| Roy’s Largest Root   | .506  | 8.863b| 2.000         | 35.000   | .001 | .336                |

Table 3 clearly shows that there was a statistically significant difference between the performance of the CG and the EG regarding the complexity of their oral productions ($F(2, 35) = 8.863, P = 0.001$, Wilks’ Lambda = 0.66 and eta squared = 0.33). This means that the effect of the treatment on both dependent variables was statistically significant.

Then, in order to see if there was any significant difference between the performance of the participants in the two groups, in terms of the lexical and grammatical complexity in their oral productions, as follow up analyses, two independent samples t-tests were run whose results are shown in tables 4 and 5.

Table 4. Independent samples t-test results on lexical complexity

| GROUP | N   | MEAN  | SD    | SIG.  | F    | t    | df  |
|-------|-----|-------|-------|-------|------|------|-----|
| Lexical EG | 19  | 59.1505 | 14.34964 | .002  | .463 | 3.36 | 37  |
| CG    | 20  | 42.9225 | 15.73668 |        |      |      |     |

As Table 4 indicates, because the sig value (.002) is less than .05, there is a statistically significant difference between the mean values in the EG ($M = 59.15, SD = 14.34$) and the
CG ($M = 42.92$, $SD = 15.73$, $t(37) = 3.36$ and $p = .002$, two-tailed). Therefore, the EG outperformed the CG significantly in terms of their lexical complexity in their oral productions.

**Table 5. Independent samples t-test results on grammatical complexity**

| GROUP   | N  | MEAN | SD    | SIG. | F    | t    | df |
|---------|----|------|-------|------|------|------|----|
| Grammatical | EG | 19   | .8853 | .23129 | .002 | 3.346 | 37 |
|          | CG | 20   | .6500 | .20767 |      |       |    |

Table 5 shows that regarding the grammatical complexity of the learners’ productions after the treatment, a statistically significant difference was observed between the EG ($M = .88$, $SD = .23$) and the CG ($M = .65$, $SD = .20$, $t(37) = 3.34$ and $p = .002$, two-tailed). Therefore, the EG’s performance was better than that of the CG in terms of the grammatical complexity in their oral productions as well. Based on these findings, the research question of the study can be answered positively. That is, the EG outperformed the CG in terms of both lexical and grammatical complexity of their oral productions after the treatment.

These findings are in line with Cohen and Brooks-Carson (2001), who found that thinking in the learners’ L1 results in the production of more elaborate content, and in situations where the mother tongue was judiciously employed by the teacher, learners always had more ideas and a greater amount of clear thinking in their L1. In a similar vein, more recently, Li (2018) also pointed to the mediating role of the L1 in opening up dialogue and bringing more target language into the conversation in the IRF cycle in classroom discourse. Also, the reason why Ostovar-Namaghi and Norouzi (2015) in their study suggested warmly favoring the use of the L1 by teachers in their class and allowing the learners to use both intra- and cross-lingual strategies to express themselves in the target language becomes clear. Additionally, the results of this study can be compared to the ones obtained by Wharton (2007), which highlighted the role of the native language to raise students’ awareness about similarities and differences existing between the first and target languages and to help them find their own ways to express themselves in the foreign language. The awareness-raising function of the L1 use in the L2 instructional contexts has also been corroborated in a recent study conducted by McManus and Marsden (2019) on French learners’ use of verbal morphology.

The same findings are in agreement with Pan (2010), too, whose study findings indicated that L1 use could facilitate the comprehension process and lower the amount of insecurity caused by insufficient knowledge and proficiency. The beneficial effects of the use of the L1 by L2 teachers on lower proficiency level learners has also been recently confirmed by Lee and Levin (2018), who found L1 use could differentially contribute to intermediate and advanced L2 learners’ listening comprehension with intermediate learners gaining similar levels of vocabulary learning and listening comprehension as compared to their advanced counterparts.
An agreement can also be found between the present study and Nation’s (2001), in which he found that L1 use can lead to learners’ having a very effective strategy for speeding up vocabulary growth. In that study, the first language was viewed as an important element without which learning could not be possible and disregarding it would be completely impossible. The results further confirm Greggio and Gill’s (2007) findings, which showed that learners’ first language can be used as an important strategy to improve the oral complexity of their productions in terms of both the structures they use and the vocabulary they employ. The results of this study also lend support to what Fakhrzadeh (2009) found in her study. She pointed out that if the L1 is appropriately applied in ESP courses at tertiary levels, it can make a good contribution to students’ L2 acquisition. Moreover, based on the findings of the present study, we fully agree with Lahmann et al. (2015), who came to the conclusion that L1 use can have a significantly positive effect on the lexical and grammatical complexity of learners’ oral productions.

Also, the results found in this study are quite in line with Lameta-Tufuga (1994), who found that the use of the first language in discussions of the task led to learners being more actively involved in dealing with the ideas, involving a great deal of the second language vocabulary used in the later task and helping learners achieve a good mastery over the relevant L2 vocabulary in a very supportive L1 context. Although some earlier studies (e.g., Chaudron, 1988; Krashen, 1982; MacDonald, 1993) refute the use of learners’ first language in L2 classes and recommend the avoidance of its use altogether, claiming that learners should get used to L2 use through abundant exposure, more recent studies, such as the ones mentioned above, along with the present study, seem to support the use of the L1 in L2 classes because of its diverse positive effects from different perspectives.

6. CONCLUSIONS AND IMPLICATIONS OF THE STUDY

The use of the first language in foreign language teaching situations may seem undesirable because of the recommendations of two once popular methods of language teaching (i.e., the Direct and Audiolingual methods). However, the results of this study, along with the findings of other recently done studies (e.g., Lee & Levin, 2018; Li, 2018; McManus & Marsden, 2019), suggest that this teaching technique merits more consideration and attention before being judged negatively. Hence, it can convincingly be argued that we should not quickly “dismiss a principle or technique, because at first glance, it appears to be at odds with” our own beliefs or to be impossible to apply in our own situation (Larsen-Freeman & Anderson, 2011, p. 8). That is, we need to practice playing “the believing game” (Elbow as cited in Larsen-Freeman & Anderson, 2011, p. 6) by reflecting upon principles and techniques which may seem to be contrary to our beliefs and ideas.

In this study, the teacher employed the learners’ L1 as an instructional technique in an attempt to elicit more elaborate L2 vocabulary and structures from the learners. Results of the study indicated that after a four-month period of using this elicitation technique, the EG learners who underwent such a treatment tended to use more complex words and structures in their L2 oral productions compared to their CG counterparts, who did not receive such L1-based training. Therefore, in response to the research question of the study, it can be argued that employing the L1 as an elicitation strategy contributed to the EG students’
superior performance in terms of both the lexical and grammatical complexity of their L2 oral productions. These findings have some practical implications for all those who are involved in language learning and teaching. First of all, it can be a convincing reason for avoiding the fear of using or explicitly expressing the use of the learners’ mother tongue by the instructors in this field and can shed light on the advantages of using their first language in their learning situations.

A second implication of this study is for the language learners who are looking for a good way of learning a second language and have doubts about using or not using their mother tongue for this purpose. They can get applicable evidence about this fact that using their first language appropriately not only does not impede their learning but also can facilitate this process and help them improve their grammatical and lexical complexity in their oral productions. They can reconsider the role of their mother tongue in learning their target language and take advantage of using tools and materials in which their first language plays a useful role.

The third practical implication of this study is for curriculum planners, material developers and syllabus designers, whose plans seem to lack the advantage of using the learners’ first language for improving their oral proficiency, and specifically the oral complexity of their productions. They can consider a careful injection of learners’ mother tongue into their teaching plans and try to improve the students’ oral productions in terms of complexity in this way.

Nevertheless, like all other studies, this research has a number of unavoidable limitations. First, given that the sample size was rather limited, it is advisable to do similar studies on larger randomly selected samples. Second, as the participants were taken only from the B1 and B2 CEFR proficiency levels, the results cannot be generalized to learners of other proficiency levels and more studies incorporating other proficiency levels need to be conducted. Third, of the three components of CAF, only the first one—complexity—was evaluated. Hence, future research can broaden this perspective by examining the effect of using mother tongue on accuracy and fluency of L2 learners’ speech in addition to its complexity. Fourth, as the whole experiment took around four months and since learning speaking necessitates longer periods of time, this length of time might not be suitable for learning to happen. Finally, this study did not control the role of other potentially influential factors such as gender or education level of the participants, which could give impetus to further studies in the future.

Given the above-mentioned shortcomings, the results of this study may not be definitive; nevertheless, they can pave the way for more studies on the use of L1 and its effects on L2 learners’ oral proficiency. However, what is obvious and needs to be taken into consideration is the fact that L1 use can be an effective strategy in situations where the teacher and students share the same native language. This prerequisite can make us aware of the fact that in addition to L1 use, it is strictly necessary to look for other strategies which can be employed in L2 instructional settings where the teacher and learners are from different language backgrounds.
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