



The Reading Matrix
Vol. 7, No. 3, December 2007

THE EFFECT OF A FORMAL INSTRUCTION CONTEXT ON THE LEXICO-GRAMMATICAL DEVELOPMENT OF ADVANCED LEARNERS OF L3 ENGLISH

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Abstract

In the present article two different L3 learning contexts are distinguished: formal instruction (FI) and study abroad (SA). We analyze the effect of a formal instruction learning context (FI) on students of English as a foreign language. The main objective is to study the impact of FI on the students' lexico-grammatical development. A study was carried out with 36 subjects (advanced L3 English university students) in order to compare their linguistic performance at the beginning of their FI period (T1) and after 80 hours of formal instruction (T2) as measured by a cloze and a sentence rephrasing test. L3 learner results were compared to baseline data (T0) (19 NSs of English, exchange university students) on the aforementioned tests. Statistically significant findings were found for L3 learners' linguistic improvement over the FI period. Implications of the study are presented and discussed.

Introduction

In his seminal work, Krashen (1987) makes a distinction between second language acquisition (SLA) and foreign language learning (FLL). Thus, the former is "a process similar, if not identical, to the way children develop ability in their first language". It is, therefore, a subconscious process, since we "are generally not consciously aware of the rules of the languages we have acquired. Instead, we have a 'feel' for correctness", he claims. The latter term, on the contrary, refers to "conscious knowledge of a second language, knowing the rules, being aware of them, and being able to talk about them" (Krashen, 1987, p. 10). It follows that, in this formulation, SLA is linked to what is generally referred to as implicit knowledge, whereas FLL is related to explicit knowledge, the former being characteristic of a native speaker's (henceforth NS) competence (Hulstijn, 2005).

Not surprisingly then, subsequent research has signaled context, be it the native-speaking environment or the classroom, among the external factors that intervene in SLA/FLL (e.g. DeKeyser, 2005a), possibly resulting in substantial developmental differences. According to Batstone (2002), learners basically face two contexts, communicative and learning. In communicative contexts learners use their L2 to exchange information, thus accomplishing important social and interpersonal functions, while in learning contexts learners are led to attend to

form with a view to improving their linguistic expertise. In a paper on learning context and its effects on SLA, Collentine and Freed (2004) contrast the typical contexts in which high school and university level students find themselves. They specifically refer to the formal language classroom in the home country (AH, for “at home”) and the study abroad (SA) context. Borrowing Batstone’s (2002) terminology, these authors (2004, p. 155-156) remark that “the formal language classroom [...] is heavily biased toward learning contexts”, while “studying abroad heavily involves both communicative and learning contexts which may entail a hybrid communicative-learning context. Students attend formal classes and thus employ the L2 in learning contexts. They also negotiate communicative contexts”. The latter are seen as opportunities to take part in linguistic exchanges, often embedded in target culture situations and involving interaction with NSs. SA learners may also use communicative contexts to put into practice the explicit knowledge attained from their learning experiences (Carson & Longhini, p. 2002). This perceived advantage of the SA contexts accounts for the enormous interest they raise, not to mention the supposed superiority that the popular view attributes to this particular immersion context over learning restricted to the formal language classroom. However, no conclusive evidence has as yet been presented supporting the advantage of SA over AH contexts for all students, language levels, and language skills.

Formal instruction (FI) contexts have also attracted a great deal of attention on their own. Research has concentrated mostly on the acquisition of grammatical structures. Ellis (2002) has studied the beneficial effects of form-focused instruction (FFI) and tentatively concluded that it may ease up and accelerate the development of implicit L2 knowledge. More specifically, he contends that explicit knowledge can convert into implicit knowledge through practice as long as the learner is developmentally ready to acquire a given linguistic form. However, Ellis’s initial conclusion is to be qualified since, as he himself shows in this study, the effectiveness of FFI depends on factors as varied as the duration of the instruction period –see also Radwan (2004, p. 83) for a similar claim–, the intrinsic simplicity or difficulty of the target grammatical features –a point also made by DeKeyser (2005b), and which Goldschneider and DeKeyser (2005) also relate to what they call the “salience” of a grammatical feature–, or even the learner’s age, since “explicit knowledge is learnable at any age, whereas implicit knowledge is not” (Ellis, 2005, p. 150).

FI or AH contexts continue to attract a good deal of interest since SA has not yet been reported to bring about overall better results in foreign language acquisition. Oral fluency is one of the key areas where the advantage of SA context is apparent (Segalowitz & Freed, 2004). Existing research also indicates that important gains in vocabulary may be attributed to the SA experience (Ife, Vives Boix & Meara, 2000; Milton & Meara, 1995; Walsh, 1994), even though “our understanding of vocabulary development in different learning contexts is still in its infancy” in Collentine’s words (2004, p. 230). Evidence in other areas such as grammatical performance often exhibits mixed results, seemingly accelerating “certain aspects of the learner’s [morpho-syntactic] grammatical skills, such as the use of aspectuo-temporal morphology, while other aspects are less affected” (Howard, 2001, p. 138; see also Collentine & Freed, 2004, p. 158).

The present study focuses precisely on the possible lexico-grammatical gains, or lack thereof, derived from an FI-only foreign language learning context. It is part of a broader state-funded research project, Stay Abroad and Language Acquisition (SALA), seeking to contrast the different impact of the two aforementioned learning contexts, namely AH and SA, on the linguistic development of college-age L3 English learners.

Method

Participants

Participants in the study (N=36) have been selected from a pool of 1st year advanced L3 English students enrolled at the Universitat Pompeu Fabra (UPF) in Barcelona (Spain) and reading for a degree in Translation and Interpretation. They are all bilingual Catalan/Spanish speakers. Their performance on two tests described below has been compared to baseline data obtained from a group (T0) of 19 NSs of English (exchange undergraduate students at the University of the Balearic Islands, UIB, in Palma de Mallorca, Spain), in order to provide an accurate non-native competence profile on the basis of real knowledge of native competence.

Design Of The Study

The SALA project analyzes output produced by a sample of advanced L3 learners of English. This output is taken from a comprehensive battery of tests designed to measure the subjects' skills in English at four different times: T1 (at the beginning of the FI period at the home university), T2 (after some 80 hours of FI), T3 (after a 3-month stay in an English-speaking university), and T4 (one year after the students' SA period) (see Trenchs et al., 2006 for further details). The aim of this paper is to discuss the impact of FI on the foreign language lexico-grammatical competence, as measured in the cloze and sentence rephrasing tests from T1 and T2, i.e. when our group of learners have first entered university and then after two terms (80 hours) of FI in English. In this context, any significant improvement on the L3 learners' lexico-grammatical competence may be attributed, at least in part, to the possible benefits of FI.

Cloze tests are fully meaningful texts in which words have been deleted at certain intervals, so that the reader has to fill in the resulting gaps in order to reconstruct the meaning of the text. They are global tests in that several language skills are simultaneously required for their successful completion, including mastery of vocabulary, grammar, discourse and even reading skills since, in order to fill in each gap with an acceptable word, sitters need to look beyond the gap's immediate context. It has actually been noted that marks obtained in the Cambridge Proficiency examination cloze test are directly proportional to the examination's overall marks (Hughes, 1989, p. 66). The main aim of the cloze test as part of the general battery of tests implemented by SALA is to measure the learner's lexico-grammatical competence. The same can be said of the sentence rephrasing test, in which students are asked to rewrite 20 sentences starting with a given word(s) in such a way that they are as similar as possible in meaning to the original sentences. Both types of test share some of the features attributed to measures of implicit knowledge according to Ellis (2005).

To ensure reliability, tests have been piloted, administered and marked consistently. Ambiguous items and instructions have been avoided. Additionally, items have been analyzed using two classical measures, the facility value and the discrimination index. In the case of the cloze test, we have excluded three items (13, 15, 20) from our final counts at T0, T1 and T2, as they proved too difficult according to the facility value measure and had very low discrimination indexes. Correction has been led by the so-called "acceptable word" method, i.e. taking as valid not necessarily the exact missing word but any taken as correct by the authors with the help of two experienced native teachers.

This study addresses the following research questions:

- To what extent can a two-term FI period optimize L3 competence in the lexico-grammatical domain as measured by a cloze and sentence rephrasing test?
- Does an FI context benefit high and low-scorers alike?
- Does L3 learner performance differ from native performance on the aforementioned tests?

We hypothesize that some lexico-grammatical gains will be obtained after the FI period with a more perceptible effect for low-scorers. An overall better performance is expected from NSs, who we deem will exhibit less individual variation than L3 learners.

Description Of FI At The UPF

Prior to their SA, that is between T1 and T2, translation and interpretation students at the UPF take two courses in English (*Llengua B I* and *Llengua B II*) aimed at understanding and analyzing the structure, meaning and use of English clauses, while contrasting them with those of their “A” languages (i.e. Catalan and Spanish). In short, there is a Focus on Forms (Long, 1991), that is teaching discrete linguistic items in separate lessons, in combination with a skills development component, where Focus on Form is incidental or planned in the context of meaning-oriented situations. Both the theory component and the practical component have one session per week assigned in each course.

Data Analysis

Cloze Test

The descriptive statistics corresponding to cloze test scores (on a 10-point scale) at T0, T1 and T2 can be found in Table 1 below. The mean column reveals that there is indeed some improvement for L3 learners over the FI period, i.e. between T1 and T2, as expected. Likewise, NSs (T0) clearly outperform L3 learners (T1 and T2). A matched *t*-test within the L3 learner group has shown the difference between T1 and T2 to be statistically significant: $p < .001$. Further paired comparisons have also produced significant differences between NS and L3 learner performance. More specifically, the comparison between T0 and T1 ($p < .00001$) indicates a higher distance between native and non-native performance than between T0 and T2 ($p < .00001$), as would be expected. It is also apparent from the two measures of score dispersion, range and standard deviation (S.D.), that the behavior of the NS group (T0) is more homogenous than that of the L3 learners (T1, T2), as a sign of greater individual variation within the latter group at both data collection times.

	Mean	Median	Mode	Max.	Min.	Range	S.D.
T0 (NS)	7.15	7.65	7.65	8.23	4.70	3.55	0.97
T1 (L3)	3.57	3.50	4.70	7.65	0.60	7.05	1.87
T2 (L3)	4.22	4.10	2.30	8.24	0.60	7.64	1.88

Table 1. Cloze test descriptive statistics

The cloze histograms at T0, T1 and T2 are given in Figure 1 below. It can readily be appreciated that students of two levels of ability have taken the test. At T0 scores cluster on the right-hand side of the graph, showing that the test was easy for the NS group, whereas most T1 L3 learner scores cluster on the left-hand side, indicating difficulty for this group at that point in time. The spread of their scores, however, is wider at T2, which evidences that there has been some improvement.

A scattergram (see Figure 2) helps us to visualize the positive relationship between T1 and T2. The intersection of each learner’s score at T1 (horizontal axis) and T2 (vertical axis) is marked on the scattergram. For instance, the symbol further up on the right-hand side shows that this particular subject scored 7.65 at T1 and 8.24 at T2. If we drew a diagonal line, 24 participants

would fall on the upper side of the line, revealing an increase in their scores at T2; 4 participants would coincide with the line, indicating no change in their scores; and 8 participants would fall on the lower side of the line, showing a decrease in their ratings at T2 with respect to T1. The graph is indicative of a tendency toward improvement, although with some exceptions. It is also apparent that learners in the lower left region (low scorers) make further improvement than learners in the upper right region (high scorers). In fact, this is quantitatively ascertained when we look at improvement means. We have divided the learners into two halves according to their scores at T1, low scorers and high scorers. The resulting overall improvement mean has been 0.65, with a sharp contrast between the low scorers' mean (1.09) and the high scorers' one (0.20).

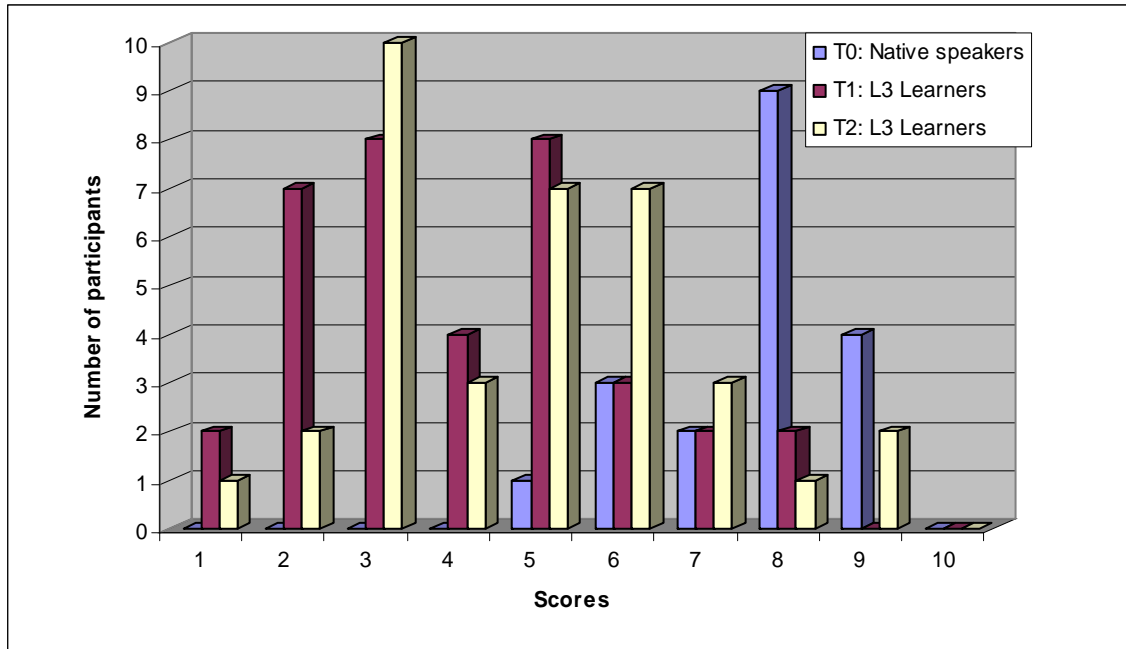


Figure 1. Cloze histograms at T0, T1 and T2

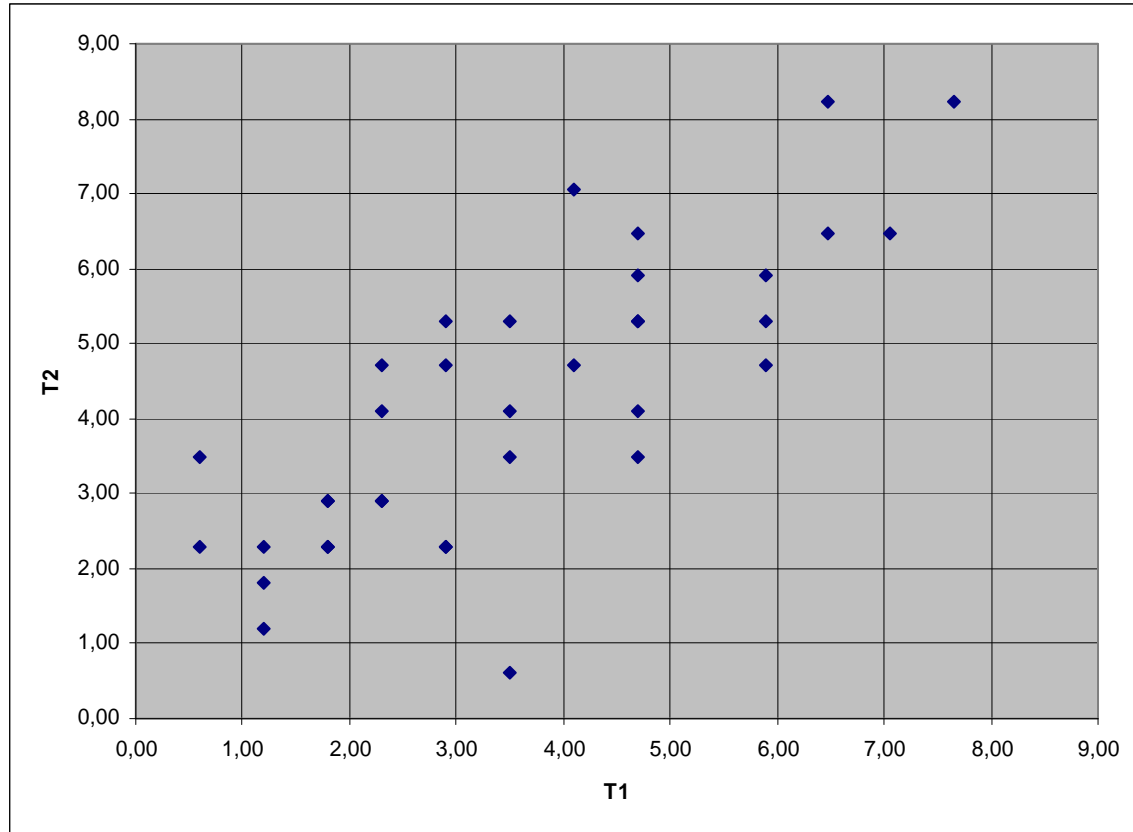


Figure 2. Cloze scattergram for T1 and T2

Rephrasing Test

Table 2 below summarizes the basic statistical information about the rephrasing test. It can readily be appreciated that the mean test score is far superior for the NS group and that there is an increase between T1 and T2 for the L3 learner group. These differences have all proved statistically significant, as in the cloze test. The matched *t*-test for T1-T2 evinces a more perceptible improvement in this case: $p < .0001$, while the figures corresponding to the between-groups *t*-test comparisons are quite similar to those obtained for the cloze (for T0-T1: $p < .00001$; and for T0-T2: $p < .00001$). The median is very close to the mean at all times, both measures being good indicators of central tendency, the most typical score for a data set. As in the cloze data, the information about range and standard deviation makes it apparent that the NS group is substantially more homogenous than the L3 learner group, whose marks are widely spread out.

	Mean	Median	Mode	Max.	Min.	Range	S.D.
T0 (NS)	7.13	7.00	7.00	9.00	5.50	3.50	0.81
T1 (L3)	3.31	3.25	0.50	8.00	0.50	7.50	2.19
T2 (L3)	4.26	4.25	6.00	9.00	0.50	8.50	2.17

Table 2. Rephrasing test descriptive statistics

The rephrasing histogram enables us to see that scores are quite similarly distributed to cloze test scores. In this case, however, NS scores cluster even more to the right, while L3 learner scores

for T1 are quite spread but still predominantly skewed to the left. L3 learner scores for T2, on the other hand, show a similar distribution pattern to that of cloze test scores, revealing quite an improvement in relation to T1.

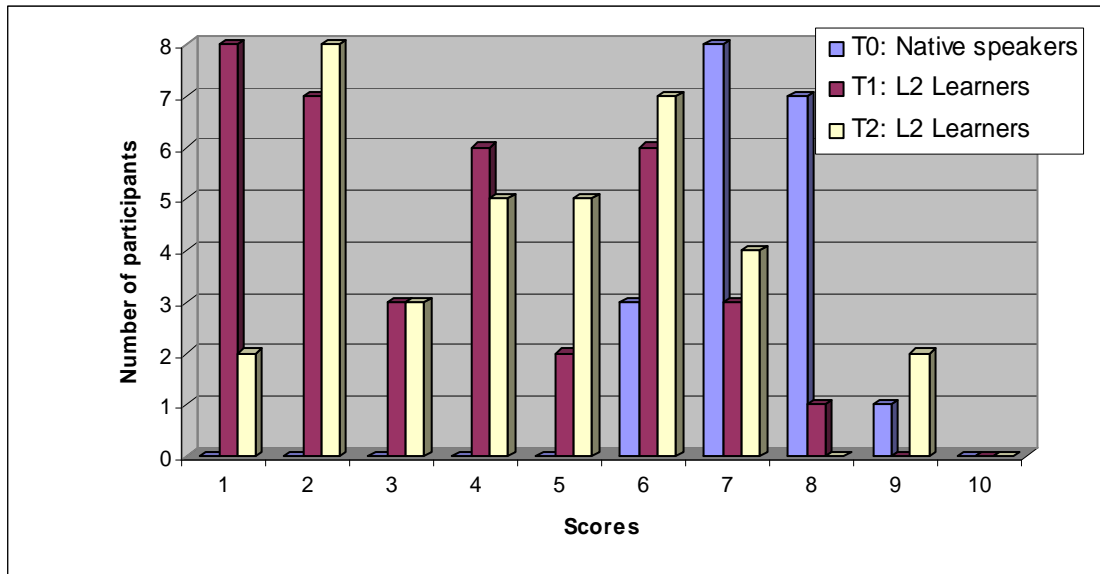


Figure 3. Rephrasing histogram at T0, T1 and T2

The scattergram in this case (see Figure 4) also reveals a positive relationship between T1 and T2. Again, if we drew a diagonal line, more symbols would fall on the upper side, indicating that most participants in the study increased their marks at T2. In fact, 30 subjects obtained a better score, three obtained the same score, and three did worse. As in the cloze test, we can see that participants in the lower left region (i.e. low-scorers) are the ones to make more progress, although the difference is not so striking in this case. The mean increase between T1-T2 was 0.96. The bottom group at T1 raised its mark by 1.08 on average at T2, while the mean for the top group was 0.83.

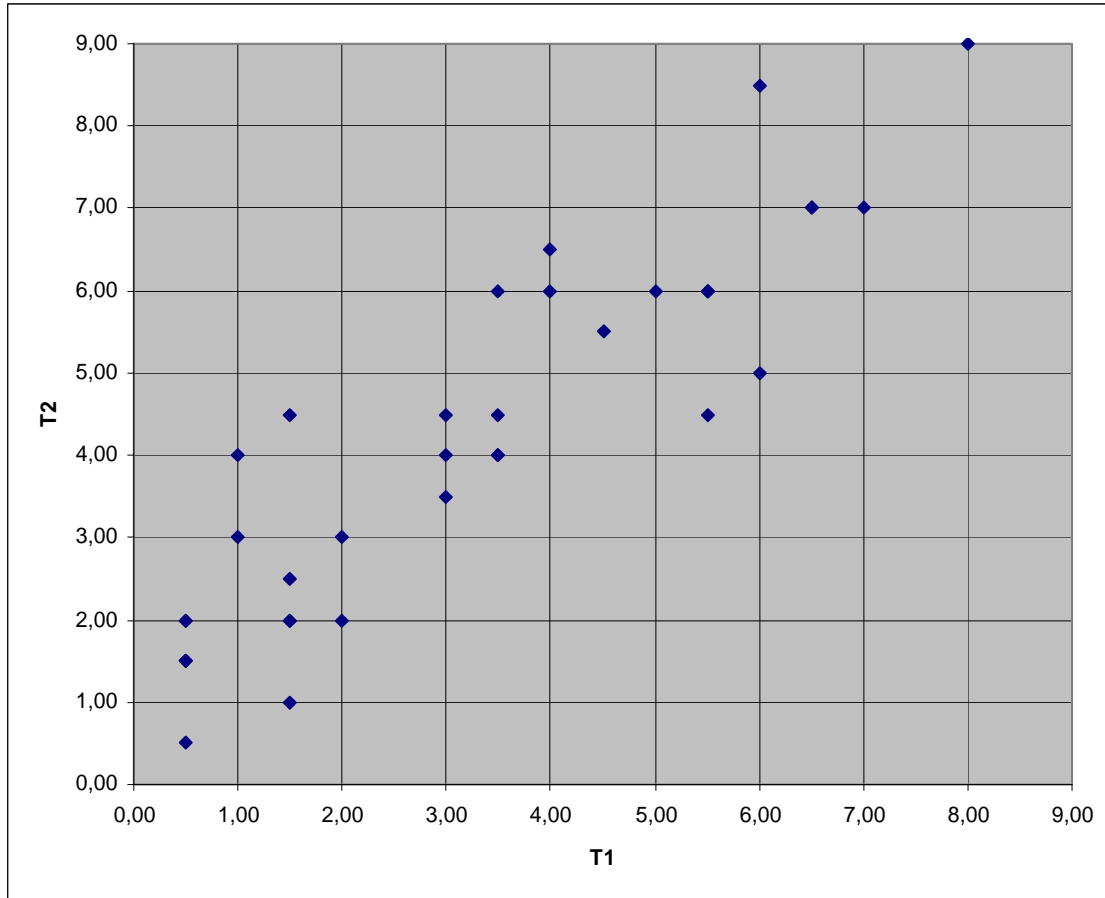


Figure 4. Rephrasing scattergram for T1 and T2

Discussion And Conclusions

The present study has analyzed the impact of an FI context on learners of L3 English. As can be seen from the results, students improved their lexico-grammatical competence over the FI period between T1 and T2 in both the cloze and the rephrasing tests. The findings of this study appear to indicate that explicit formal instruction brings out significant gains in students' L3 lexico-grammatical competence. It should be noted that students with lower linguistic scores improved their performance after the FI period. The measurements also revealed that NSs outperformed L3 learners as expected. Moreover, the findings showed that the behavior of the L3 learner group was not as homogeneous as the NS group, and this fact has important pedagogical implications for classroom instruction, especially in a foreign language learning context, and points out the need to attend to students' individual differences.

As regards evaluation means, the tools used in our research, a cloze and a rephrasing test, were not specifically designed to assess student knowledge of certain linguistic features explicitly studied in their home classroom. Nevertheless, as can be seen in our study, the FI context has positively influenced the students' language performance. It could be argued that they have been able to apply both their explicit and implicit knowledge of the L3 to our tests, which share some specific features with implicit knowledge assessment tasks.

Our results on L3 improvement after a form-focused type of instruction are consistent with other findings in the same area. Collentine (in Dufon & Churchill, 2006, p. 9) comes to similar

conclusions after investigating two groups' oral proficiency performance, stating that "the learning at home group (AH) in fact demonstrated greater development on discrete grammatical and lexical features than the SA group". A similar pattern of behavior was noticed by Juan-Garau and Pérez-Vidal (2006), who also reported benefits in their subjects' written abilities after an FI period in the home university. Their learners were seen to produce sentences which were syntactically more complex and included a higher proportion of subordinate clauses. All in all, the present study appears to be useful to support Ellis's claim (2002) that FI contributes to accelerating the development of L2 knowledge.

Certain limitations, however, impinge upon the findings of the present study. The limited period of formal instruction that the experimental group underwent may be regarded as too brief to make results generalizable and conclusive. Future studies on the impact of FI should involve a longer intervention period as well as a more detailed account of other intervening variables, such as the students' previous type of instruction as possibly affecting the students' suitability for a particular teaching method. Finally, we must highlight the need to carry out further research with a wider scope, focusing on other gains derived from an FI learning context.

To some extent, it could reasonably be argued that the L3 students' familiarity with this type of tests, as well as their different learning styles and cognitive capabilities, may have influenced the final results. Although the results presented in this study are quantitative, they do not include sufficient data to explain why L3 students obtained better results in the rephrasing test than in the cloze. Further qualitative analysis needs to be undertaken in order to have a more complete picture, based on knowledge grounded in the students' language performance.

Finally, the present research has been confined to the study of an FI context in the process of learning a foreign language. Future research is planned in order to additionally carry out an analysis of the effects of SA on students' language performance.

Acknowledgements

The authors are grateful to Neus Figuera for her insightful comments on test evaluation and to Silvia Ramos for her unconditional willingness to help. Likewise, sponsorship from the Spanish Ministry of Education and Science (MEC) to the SALA project (ref. HUM2004-05442-C02-01/FILO) is gratefully acknowledged.

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