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Study Abroad Research in Second Language Acquisition and International Education

The influence of a short study abroad experience on perceived foreign accent: an exploratory study beyond the immediate effects

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First Author:	Ángels Llanes	
Corresponding Author:	Ángels Llanes Lleida, SPAIN	
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Author Comments:	<p>Dear Editor,</p> <p>Enclosed is an article titled "The influence of a short study abroad experience on perceived foreign accent: an exploratory study beyond the immediate effects" as a candidate for publication in the Study Abroad Research in Second Language Acquisition and International Education journal. This article explores the development of L2 pronunciation of two groups of participants, one studying abroad and the other one in their home institution. The article is ground breaking in that it is the first to measure the long-term effects of a study abroad program in a group of children. I strongly believe the paper would be interesting for the readership of this journal. I hope you consider this study a valuable contribution to the field in general and to this journal in particular.</p>	
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The influence of a short stay abroad experience on perceived foreign accent: an exploratory study beyond the immediate effects

Àngels Llanes

Abstract

This study examines the impact of learning context on the L2 pronunciation of 14 Catalan/Spanish-speaking children. Eight children engaged in a two-month study abroad (SA) experience, whereas six students learned English (L2) in their home school. The participants were asked to describe a picture at three data collection times, namely prior to the SA group's departure to Ireland, immediately after they returned from their stay abroad, and a further year later again. The excerpts were presented to a group of 11 native speakers of English who rated the degree of foreign accent. Results indicate that for the SA group, the difference between the pre- and post-test was significant, and approaching significance between the pre- and the delayed post-test. For the at-home group of learners, no significant difference was found.

1. Introduction

It is widely held that the study abroad (SA) learning context provides the ideal setting to learn a foreign or second language (L2). Indeed, this belief would seem to account for the popularity that SA programs have gained over the last few years, the demand paralleling the globalization process as individuals rapidly become aware of the need to be internationally competent. Research aimed at documenting the L2 gains of an SA

experience seems to confirm that overseas programs are, in general, beneficial, particularly in such areas as oral fluency and vocabulary acquisition, with these gains being attributed to the multiple opportunities that the SA context offers to practice the L2 and to the quantity and quality of input that participants receive (Freed, 1995; Llanes & Muñoz, 2013; Pérez-Vidal & Juan-Garau, 2009). However, others have shown that the benefits of SA on the development of areas such as pronunciation, grammar and writing are not as straightforward (Collentine, 2004; Mora, 2008).

Most of the aforementioned studies of the SA learning context have examined the impact of participating in an overseas program on adults, primarily undergraduate students, but very few studies have documented the impact on children or adolescents (notable exceptions being Evans & Fisher, 2005; Llanes, 2012; Llanes & Muñoz, 2013). Likewise, there is a dearth of research documenting the long-term effects of SA on L2 development, with most studies examining only its immediate impact. For exceptions, see Pérez-Vidal and Juan-Garau (2009) who examine the long-term effects of overseas experiences, while, to the best of my knowledge, only one study has evaluated the long-term impact on children's L2 development (Llanes, 2012).

Thus, the purpose of the present study is to fill these gaps in the literature by exploring the short- and long-term effects of a two-month SA experience on the degree of perceived foreign accent (FA) of a group of Catalan/Spanish children learning English as an L2.

2. Literature review

The impact of SA has become the focus of much research, generating numerous studies of its effects on L2 development (Freed, 1995; Freed, Dewey, Segalowitz, & Halter,

2004). This body of research has centred primarily on the following L2 areas: oral fluency, vocabulary acquisition, pronunciation, grammar, sociolinguistic skills and writing skills, and the findings vary depending on the area under study.

Most studies focusing on oral fluency, vocabulary, listening and sociolinguistic skills find that spending time abroad is beneficial for the development of these language areas (Llanes & Muñoz, 2009; Llanes & Prieto Botana, 2015; Milton & Meara, 1995; Regan, Howard, & Lemée, 2009). However, research in other areas, including pronunciation, writing skills and grammar, reports somewhat contradictory findings (Collentine, 2004; Llanes & Muñoz, 2013; Mora, 2008; Pérez-Vidal & Juan-Garau, 2009; Stevens, 2011). Collentine (2004), for example, compared the L2 grammatical development of two groups of college students, one engaging in a semester-long experience abroad, and the other studying at home (AH) and taking a regular university course. The author found that while the SA group developed better narrative abilities, the AH students did better on discrete grammatical and lexical features. Freed, So, and Lazar (2003) compared the L2 written development of two groups of undergraduate students with their gains in L2 oral fluency. A panel of native speakers were asked to assess the participants' writings without any specific instructions. While the panel of judges that assessed the participants' skills perceived significant gains in the oral fluency of the SA participants (compared to those made by their AH counterparts), they did not identify any significant progress in the written fluency of the SA group. However, interestingly, the judges found the written fluency of the AH students to be greater than that of the SA students. When the judges were later asked what they had assessed in evaluating the learners' writing, they reported to have considered the following textual features the most: grammatical accuracy, vocabulary, organization. In a more recent study, Serrano,

Tragant, and Llanes (2012) also compared oral and written L2 development, in this instance among SA students over a full academic year. They found that whereas their oral skills began to show an improvement during the first semester, it was not until the second semester that the students' written skills progressed. Thus, it might be the case that some skills require more time to improve. Finally, oral and written language development was also addressed by Llanes and Muñoz (2013), in a comparison of the L2 development of four groups of participants: a group of SA children, a group of children in an AH context, a group of SA adults and a group of adults in an AH setting. The authors found that while the SA children showed significant improvement on most of the oral and written measures, the AH children did not present significant improvement on any of them. They also found that while the SA adults showed a significant improvement on some of the oral measures, the AH adults presented a significant improvement on some of the written measures. The authors conclude that age and learning context would seem to be determinants of the language areas likely to undergo improvements.

2.1 Study abroad and L2 pronunciation

Relatively few studies have examined the impact that SA has on L2 pronunciation, and those that exist have reported inconclusive findings. One of the first authors to examine the effects of SA on L2 pronunciation was Simões (1996), who studied the oral fluency and pronunciation of five American adult learners of Spanish (L2) on a five-week program in Costa Rica. The author found that only two participants had improved their pronunciation at the end of the program. This somewhat negative finding seems to be corroborated by three later studies: Díaz-Campos (2004), Mora (2008), and George (2014). Díaz-Campos investigated the L2 pronunciation (in terms of word-initial stops,

intervocalic fricatives, word-final laterals, and palatal nasals) of two groups of American college students, one learning Spanish (L2) AH and the other engaged on a ten-week SA program in Spain. The author found that both groups showed similar gains in voiced initial stops and word-final laterals, and a similar lack of gain in intervocalic fricatives. Mora (2008) examined the L2 pronunciation of a group of Catalan/Spanish (L1) speakers majoring in English (L2). He collected data from the same participants on four occasions: on entering university; after six months of formal instruction at their AH university; after three months on an SA program; and one year after their return from the SA program. Mora elicited data using two production tasks (a reading aloud task and a sentence repetition task) to measure fluency and voice onset time, and two perception tasks (a lexical stress identification test and an AX discrimination task) in order to measure the auditory discrimination of nine phonemic contrasts through minimal pairs. The author did not find any significant results following the participants' SA experience or one year after their return from the SA program. Similarly, George (2014) failed to find any positive effects of SA on L2 pronunciation. In this study, the author examined the development of two regional features of Spanish among a group of American college students who spent 13 weeks in central Spain. The five judges rating the participants' speech samples found that very few students had adopted these two regional features.

However, some studies report more positive findings. Stevens (2001), for example, looked at L2 pronunciation (namely unvoiced stops) of two groups of L1-English learners of Spanish (L2) – one learning Spanish overseas in Spain (SA) and the other at their AH university. Stevens found that the SA group significantly improved their pronunciation of unvoiced stops, whereas the AH group did not. In a more recent study, Stevens (2011) examined the impact of a four-week SA experience on L2

pronunciation, but this time in terms of vowel duration. The author again compared the vowel duration of two groups of American students, one learning Spanish (L2) abroad, the other at their AH university. Once more, he found that the SA group significantly improved this aspect of their pronunciation, whereas the AH group did not. More positive evidence is provided by Højen (2003), who examined the development of L2-English pronunciation among two groups of adult L1-Danish learners: a group of 14 learners spending some time abroad, and a group of 11 learners studying English in their home country. The ten L1-English judges who rated the participants' degree of FA found that the SA participants significantly improved their pronunciation, whereas the AH participants did not. Avello, Mora, and Pérez-Vidal (2012) also reported positive evidence of the SA context on L2 pronunciation. The authors explored the development of L2 pronunciation among a group of 23 Catalan/Spanish college students learning English (L2) and participating in a three-month SA program. The authors focused on pronunciation errors and perceived FA, the latter being examined by means of two experiments. In the first, a panel of 37 proficient, non-native speakers rated the perceived FA of randomly presented excerpts, while in the second they heard the paired pre- and post-test sentences and were asked to indicate which of the two sounded more native-like. The authors found that L2 pronunciation in terms of segmental accuracy scores (pronunciation errors) had significantly improved after the three-month program, while the overall degree of perceived FA had not decreased significantly. Finally, Muñoz and Llanes (2014) addressed the impact of learning context (SA vs. AH) and age (children vs. adults) on L2 pronunciation in terms of perceived FA. The 28 listeners that rated the productions perceived the SA participants (regardless of their age) to have significantly reduced their degree of FA after their SA. Although age was not found to

play a significant role, the SA child participants performed better than SA adult participants.

Muñoz and Llanes' (2014) study is particularly interesting because it suggests that age is a determining factor for phonological acquisition once abroad. Indeed, many studies of the age factor suggest that when learning occurs in a naturalistic setting, where participants are massively exposed to the L2 and have multiple opportunities to practice the L2, older learners outperform younger learners in the short-term, but that younger learners catch up and even outperform older learners in the long run (Krashen, Long, & Scarcella, 1979; Muñoz, 2008). Additionally, whereas such language areas as vocabulary and morphosyntax can be successfully learned at older ages, other areas such as pronunciation seem to be conditioned by the learners' age, and research claims that the sooner, the better (Long, 1990). Some scholars also claim that the learning context determines the type of learning that participants can experience: SA participants, especially children, are more likely to make use of their implicit learning mechanisms, whereas AH participants will benefit more from their explicit learning mechanisms (DeKeyser, 2003; 2007). The type of learning is relevant because implicit knowledge is known to be more efficient and long lasting than explicit knowledge (Reber, 2003).

2.2 The long-term effects of SA

Few studies examine the long-term effects of SA experiences, but even fewer examine the long-term effects of the linguistic gains made. Nunan (2006), for example, considered the long-term effects (10 to 15 years later) that SA has on the participants' subsequent academic choices, their career development, and their social and personal

growth, while Paige, Fry, Stallman, Josić and Jae-Eun Jona (2009) examined the long-term impact of SA on global engagement. Both studies found that SA has several benefits, most notably in terms of civic engagement, knowledge production, social entrepreneurship, employability, and increased intercultural competence.

In the case of the long-term L2 gains of participants, Pérez-Vidal and Juan-Garau (2009) examined the L2 writing skills of a group of 37 Catalan/Spanish undergraduates majoring in English. Data were collected on four occasions: on entering university; after six months of formal instruction at their AH university; after three months on an SA program; and 15 months after their return from the SA program. While the authors found that two measures (words per minute and Guiraud's lexical complexity index) showed significant improvements after six months of formal AH instruction and after the three-month-long SA experience, no significant improvements were found between the participants' return from their SA experience and the final data collection point (15 months later). Llanes (2012) examined the immediate (one week after participants returned from their SA program) and long-term effects (one year after completing the program) on 16 child participants, nine of whom participated in a two-month SA program in Ireland and seven of whom studied at their home school in Barcelona (Spain). Llanes found that on the immediate post-test, the SA participants scored significantly higher on all the oral measures examined, and while no significant improvement was found on any of the written measures, the SA participants still scored higher on all of them except one (accuracy). It was also found that the SA participants did not experience any significant improvements between this post-test and the delayed post-test, although they still scored higher on all the variables but one (written fluency).

Such studies call into question how durable the gains made during an SA program are, or whether they disappear soon after the participants return to their home country. The aim of the present study is to shed further light on the immediate and long-term effects of a short SA experience (two months) in the case of the perceived FA of a group of Catalan/Spanish child learners of English as an L2. The study breaks ground in that it is the first study to address the long-term effects of a SA program on the perceived FA of children, and therefore fills a gap in the SA literature, but also in the literature examining the effects of age on L2 acquisition, and in the L2 pronunciation literature.

3. Method

3.1 Research questions

The present study specifically addresses the following research questions:

1. Does the learning context play a role in the improvement of L2 pronunciation as measured in terms of perceived FA?

1a. Do participants on a two-month SA program reduce their degree of FA by a greater extent than that achieved by their AH peers?

1b. If so, are these gains in pronunciation long lasting?

Since the participants in this study are children, it is hypothesized that the SA group will improve their pronunciation significantly between the pre- and the post-tests, whereas the AH group will not. Moreover, if we assume that SA participants make use of their implicit learning mechanisms, then this improvement should be long lasting.

3.2 Participants

Fourteen, eleven-year-old Catalan/Spanish bilingual learners of English as an L2 participated in the present study. Of these, eight participated in a two-month SA

program in Ireland, while the other six remained in their home school in Barcelona. Participants were pupils of the same class at a single-sex (male) school in Barcelona who had the possibility of spending the third trimester overseas. The SA program was held in Dublin, where participants went to regular schools with Irish children for five hours a day, five days a week. In only one case did two boys attend the same school, but they were placed in different classrooms. The participants lived with host families who had children of similar ages to those of the Barcelona pupils and no other foreign pupils were living with them.

The AH participants had four hours of English classes per week and were also taught Science in English two hours per week; thus, they were exposed to a total of six hours of English per week (none of the participants was enrolled in English extracurricular classes) in the two-month period that elapsed between the pre- and post-tests. After the post-test, all participants were exposed to four hours of English per week. The Science classes in English were not offered in the next grade. Although all participants had studied English for at least five years at the time of the study, their initial L2 proficiency level was elementary.

3.3 Procedure and instruments

This study consists of a pre-, post- and delayed post-test design. The pre-test was conducted in the participants' school the week prior to their departure to Ireland. The post-test was also conducted in their school the week after their return from Ireland, and the delayed post-test was administered 12 months later following their return from Ireland, also in their home school. It should be noted that none of the participants travelled to any English-speaking destination between the post-test and the delayed

post-test. On the three test dates, the participants were interviewed individually in a quiet room by the author of this study. First, the participants were interviewed to obtain some biodata and some information about their language learning experiences. In part, this semi-structured interview served as a warm-up for the next test, which consisted of a picture description (Heaton, 1966). Participants were given one minute to look at the six vignettes that made up a story and to ask any questions they might have about the task, but not related to language. Next, the participants were asked to narrate the story in English. The data obtained from this picture description task were used to examine the degree of foreign accent (FA). After describing the picture, but only during the post-test and the delayed post-test, the participants were asked to fill out a questionnaire, which was a simplification of the Language Contact Profile (Freed et al., 2004). This questionnaire was administered in the participants' L1 (Catalan/Spanish) and included questions regarding the amount and quality of their L2 exposure and input (see Appendix A). Information about the amount and type of language practice they had obtained between the post-test and the delayed post-test was elicited by asking the students if they had travelled to a place where they had had to use English, if they had taken extracurricular English classes or if they had done any other activities to practice English between the post-test and the delayed post-test dates. Additionally, the English teacher was interviewed informally to obtain information about the English classes taught. Further, the author of the present study spent two days in Ireland informally observing these students and the Catalan/Spanish teacher who accompanied them.¹

Although the length of the recordings varied from participant to participant, for the purposes of the present study only the first 20 seconds of each recording were used in the subsequent rating. The first 20 seconds were chosen (not including false starts) in

order to keep the content largely constant and thereby to obtain comparable speech samples (Derwing, Munro, & Thompson, 2007). In order to avoid any task-order effects, the excerpts were randomized every time they were administered; thus, all the raters listened to the excerpts in a different order. The 42 excerpts (14 participants x 3 tests) were presented individually to the raters on a computer screen. A group of 11 raters, all native speakers (NSs) of English, was asked to assess the degree of perceived FA of the excerpts on a 7-point Likert scale (1= strong FA, 7= no FA). The raters were asked to focus on FA and ignore other aspects of the language such as grammar or fluency. In order to familiarize raters with the procedure, they were presented with three practice excerpts before proceeding to the main rating task, which was organized in three blocks of 14 excerpts each. Raters were invited to take a short break after each block. The rating task lasted 15 minutes approximately.

3.4 Raters

Eleven raters were recruited to participate in the present study (n= 4 males, n= 7 females). They were all born in the USA and thus spoke English as their mother tongue. None of them reported any hearing problems that might have impeded them from completing the rating task. They were all undergraduate or graduate students from a large eastern university, with ages ranging from 18 to 62. Five of them were working towards a PhD in Applied Linguistics, one was studying an MA in Teaching English, one was majoring in nursing, one in biology, one in biomedical engineering, another was also studying engineering (though she did not specify which branch) and, finally, one was majoring in labour and employment relations.² Their foreign language knowledge varied, with three raters reporting that they did not know any L2. Information regarding the others can be found in Table 1 below.

TABLE 1

When asked about the frequency with which they were exposed to accented English in their every-day life, four stated ‘always’ and the remaining seven stated ‘often’. As for their degree of familiarity with Spanish-accented English (on a 7-point Likert scale where 1= very familiar and 7= very unfamiliar), the participants responded as follows: two: 1, two: 2, three: 3, two: 4, and two: 6. Yet, despite the fact that some participants reported that they were not very familiar with Spanish-accented English, none of them found it difficult to understand. Again on a seven-point Likert scale (where 1= very easy and 7= very difficult), three participants indicated 1, four: 2, three: 3, and only one indicated 4. Finally, seven of the 11 raters had never taught English to Catalan/Spanish speakers, and most of them had spent some time, although not much, in a Spanish-speaking country on holiday.

The interrater reliability was calculated using Cronbach’s alpha and a high value was obtained (0.942). Given that the scores of the raters who were more familiar with Catalan/Spanish-accented English did not differ from those raters who were less familiar with this type of accented English (Kennedy & Trofimovich, 2008), a single mean accentedness score was calculated for each learner at each testing time (pre-, post- and delayed-post test). These final scores are the ones used in all subsequent analyses reported herein.

4. Results

Given the small number of participants in each group, nonparametric statistics were used to answer the research questions. In order to determine whether the degree of perceived foreign accent of the participants had dropped between the pre- and the post-tests, a separate Wilcoxon signed-rank test was run for each group. The AH group did

not present any significant improvement (Table 2); indeed, the mean score for this group of participants was exactly the same on the pre- and the post-tests. However, the difference between the pre- and post-test scores for the group of SA participants was significant ($Z = -1.963$, $p = .050$), and the descriptive statistics show that this group improved their L2 pronunciation in the post-test (Table 2). Moreover, Cohen's d indicated that this difference was large ($d = 0.94$).

TABLE 2

In order to answer research question 1b, i.e., whether the gains in L2 pronunciation (if any) were long lasting, a Wilcoxon signed-rank test was conducted on the scores of the post-test and the scores of the delayed post-test. No statistically significant differences were found for either group. The AH group scored higher on the delayed post-test than it had on the pre- and post-tests indicating that participants had improved their pronunciation after a year of formal instruction (although not significantly). In the case of the SA group, while participants scored higher on the delayed post-test than on the pre-test, they scored slightly lower than on the post-test. In fact, the Wilcoxon signed-rank test run on the scores obtained in the pre-test and those obtained in the delayed post-test showed that for the AH group this difference was not significant, whereas for the SA group it approached significance ($Z = -2.197$, $p = .064$), and the effect size was shown to be large again ($d = 1.13$), demonstrating a good level of consistency within the group of SA participants.

Thus, only the SA group showed a significant improvement in L2 pronunciation between the pre- and the post-tests, and although neither of the groups presented a statistically significant difference on the post- and the delayed post-tests, both groups scored higher on the delayed post-test than on the pre-test, especially the SA group, indicating that improvement in L2 pronunciation was still respectable on the delayed

post-test. The mean SA scores indicate that the results on the delayed post-test were almost the same as those recorded on the post-test, indicating that gains were quite durable.

5. Discussion

The research question posed by this study was whether learning context plays a role in the improvement of L2 pronunciation and, more specifically, whether SA participants reduce their degree of FA by a greater extent than that achieved by their AH peers. It has been found that the SA group scored significantly higher on the post-test, while the AH participants recorded similar scores on the pre- and post-tests. Thus, the hypothesis that the SA group would significantly improve their L2 pronunciation (measured in terms of perceived FA) while the AH group would not was confirmed.

The positive development observed in the participants of the SA group is further evidence in support of the benefits of participating in an overseas program, even if this is relatively short. This finding is in line with the results of other studies that report a positive impact of SA on L2 pronunciation (Stevens, 2001, 2011; Muñoz & Llanes, 2014).

The relative lack of development shown by the participants of the AH group should, perhaps, come as no surprise given that they had limited exposure to the L2 (six hours per week), they did not receive any specific instruction in L2 pronunciation and their teachers were not native speakers (NSs) of English. Likewise, the improvement shown by the participants of the SA group was not entirely unanticipated on the grounds that they were young learners, given massive exposure to the L2 and afforded plenty of opportunities to practice the L2 exclusively with NSs of English. Indeed, the information obtained from the questionnaire, combined with the researcher's

observations in situ, confirmed that the SA group only interacted with NSs of English and that they did so in multiple contexts (see Appendix B).

Research question 1b sought to determine whether the gains in pronunciation would still be evident a year later. Here, the descriptive statistics show that while the SA group scored a little lower (-0.08) on the delayed post-test, these scores were very similar to their post-test scores, suggesting that most of the gains made during the SA were maintained twelve months on. In contrast, the AH group scored slightly higher (0.19) on the delayed post-test (compared to their scores on the pre- and post-tests), which suggests that AH learners need more time (in excess of a year) to improve their L2 pronunciation. This outcome is in line with their relatively low degree of exposure to English and the relatively little input that they receive in the L2. The lack of significance between the post-test and the delayed post-test scores for both groups was expected given the little input they received in the twelve months following the post-test.

The overall lack of significance in both groups of participants between their pre-test and delayed post-test scores may tentatively be explained by the small number of participants in each group, although it may also be an indication that more time is needed for L2 pronunciation gains to emerge. Yet, given that the difference between the pre-test and the delayed post-test scores for the SA group was approaching significance, and that the scores on the post-test and on the delayed post-test were very similar, these results may be interpreted more positively, especially if we take into account the fact that following their SA program the participants were exposed to little English, had few opportunities to practice the L2 and their teachers were not NSs of English. This trend towards improvement between the pre-test and the delayed post-test is in line with the outcomes reported by the few studies that have looked at the long-term effects of SA

experiences (Llanes, 2012; Pérez-Vidal & Juan-Garau, 2009). Here, as discussed, the quantity and quality of exposure may account for the lack of significant gains recorded one year after the participants returned from the SA program.

6. Conclusion and further research

This study has addressed the immediate and long-term effects of a short SA experience on the L2 pronunciation (measured in terms of perceived FA) of children. The AH participants did not show any significant improvement between the three data collection dates, whereas the scores of the SA participants were significantly better between the pre- and post-tests, and approached significance between the pre- and delayed post-tests.

The study reported here is of an exploratory nature and is limited by the small sample size of participants in both groups. Clearly, for these results to be generalized, further research is needed with a larger number of participants. Likewise, future studies could usefully measure L2 pronunciation with different constructs (e.g., voiced onset time) to gain a better understanding of the development underlying L2 pronunciation. In fact, although raters were asked to focus exclusively on foreign accent and to ignore other aspects of the participants' production (a potential limitation of the present study given suggestions that FA is determined by other aspects of L2 proficiency), the reliance here solely on NSs' ratings might introduce an element of unavoidable subjectivity. Further research needs to clarify this and determine what it is that raters are specifically reacting to. A further potential limitation might lie in the number of raters used. Although many of the studies discussed here employed fewer raters (George, 2014; Højen, 2003), a greater number of raters would have further enhanced the reliability of the results.

The fact that the SA participants performed much better than the AH participants can be explained in relation to a number of factors, including the quantity and quality of both language exposure and input and the respective profiles of their usual interlocutors. Future research could interestingly seek to isolate the individual impact of these factors given their obvious pedagogical implications. For example, if it was found that SA participants did better because of interaction with NSs, schools could consider recruiting more NSs of the L2 as staff members, or should favor frequent SA opportunities for non-native language teachers.

Despite the limitations, the results of the current study have important implications. It has been found that a short SA experience fosters L2 pronunciation, at least in children, and given that previous studies have reported positive effects of SA programs on other language domains, SA programs should target children and not just adolescents and adults. Additionally, the gains in L2 pronunciation seem to be long lasting. Hence, schools (both private and state-funded) should offer their students the opportunity to study abroad for a (short) period of time to give them the chance to accelerate L2 learning. In the case of AH learners, the study has shown that the first indications of improvement (although non-significant) occur in the delayed post-test, suggesting that improvement in L2 pronunciation is slow. It might be the case that introducing L2 phonetic instruction and practice in the classroom would lead to a faster and more significant improvement in L2 pronunciation among AH learners.

NOTES

¹ The role of this teacher was, on the one hand, to supervise the students and solve any possible problems they had, and on the other hand, to teach them Catalan and Spanish three hours per week when the students finished school.

² Although the marked differences in the backgrounds of the raters might on the surface appear to threaten the validity of the ratings, a very high Cronbach's alpha was obtained, confirming the consistency of the ratings. Moreover, previous research confirms that raters of different backgrounds and language experience can be reliable judges and provide good rating consistency (Bongaerts, Planken, & Schils, 1995; Huang & Jun, 2014).

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References

- Avello, P., Mora, J.C., & Pérez-Vidal, C. (2012). Perception of FA by non-native listeners in a study abroad context. *Research in Language*, 10, 63–78.
- Bongaerts, T., Planken, B., & Schils, E. (1995). Can late starters attain a native accent in a foreign language? A test of the Critical Period Hypothesis. In D. Singleton and Z. Lengyel (Eds.), *The age factor in second language acquisition* (pp. 30-50). Clevedon: Multilingual Matters.
- Collentine, J. (2004). The effects of learning contexts on morphosyntactic and lexical development. *Studies in Second Language Acquisition*, 26, 227-248.

- Collentine, J. (2009). Study abroad research: findings, implications and future directions. In C. Doughty and M. Long (Eds.), *Handbook of language teaching* (pp. 218-233). Malden: Blackwell.
- DeKeyser, R. (2003). Implicit and explicit learning. In C. Doughty and M. Long (Eds.), *The handbook of second language acquisition* (pp. 313-348). Oxford: Blackwell.
- DeKeyser, R. (2007). *Practice in a second language: Perspectives from applied linguistics and cognitive psychology*. New York: Cambridge University Press.
- Derwing, T., Munro, M., & Thomson, R. (2007). A longitudinal study of ESL learners' fluency and comprehensibility development. *Applied Linguistics*, 29, 359–380.
- Díaz-Campos, M. (2004). Context of learning in the acquisition of Spanish second language phonology. *Studies in Second Language Acquisition*, 26, 249–273.
- Evans, M., & Fisher, L. (2005). Measuring gains in pupils' foreign language competence as a result of participation in a school exchange visit: the case of Y9 pupils at three comprehensive schools in the UK. *Language Teaching Research*, 9(2), 173–192.
- Freed, B. (Ed.) (1995). *Second language acquisition in a study abroad context*. Amsterdam, John Benjamins.
- Freed, B., So, S., & Lazar, N. (2003). Language learning abroad: how do gains in written fluency compare with gains in oral fluency in French as a second language? *ADFL Bulletin*, 34(3), 34-40.
- Freed, B., Dewey, D., Segalowitz, N., & Halter, R. (2004). The language contact profile. *Studies in Second Language Acquisition*, 26, 349–356.
- George, A. (2014). Study abroad in central Spain: the development of regional phonological features. *Foreign Language Annals*, 47(1), 97-114.

- Heaton, J.B. (1966) *Composition through pictures*. Essex, UK: Longman.
- Højen, A. (2003). *Second language speech perception and production in adult learners before and after short-term immersion*. Unpublished doctoral dissertation, University of Aarhus, Denmark.
- Huang, B., & Jun, S. (2014). Age matters, and so may raters. *Studies in Second Language Acquisition*, DOI <http://dx.doi.org/10.1017/S0272263114000576>.
- Kennedy, S., & Trofimovich, P. (2008). Intelligibility, comprehensibility, and accentedness of L2 speech: The role of listener experience and semantic context. *The Canadian Modern Language Review / La revue canadienne des langues vivantes*, 64, 459–489.
- Krashen, S., Long, M., & Scarcella, R. (1979). Age, rate, and eventual attainment in second language acquisition. *TESOL Quarterly*, 13, 573–582.
- Llanes, À. (2012). The short- and long- term effects of a short study abroad experience: The case of children. *System*, 40, 179-190.
- Llanes, À., & Muñoz, C. (2009). A short stay abroad: does it make a difference? *System*, 37(3), 353-365.
- Llanes, À., & Muñoz, C. (2013). Age effects in a study abroad context: children and adults studying abroad and at home. *Language Learning*, 63(1), 63-90.
- Llanes, À., & Prieto Botana, G. (2015). Does listening comprehension improve as a result of a short study abroad experience? *RESLA*, 28(1), 199-212.
- Long, M. (1990). Maturation constraints on language development. *Studies in Second Language Acquisition*, 12, 251–285.
- Milton, J., & Meara, P. (1995). How periods abroad affect vocabulary growth in a foreign language. *ITL Review of Applied Linguistics*, 107(8), 17-34.

- Mora, J.C. (2008) Learning context effects on the acquisition of a second language phonology. In C. Pérez-Vidal, M. Juan-Garau, & A. Bel (Eds.), *A portrait of the young in the new multilingual Spain* (pp. 241-263). Clevedon, Multilingual Matters.
- Muñoz, C. (2008). Symmetries and asymmetries of age effects in naturalistic and instructed L2 learning. *Applied Linguistics*, 24, 578–596.
- Muñoz, C., & Llanes, À. (2014). Study abroad and changes in degree of foreign accent in children and adults. *Modern Language Journal*, 98(1), 432-449.
- Nunan, P. (2006). An exploration of the long term effects of student exchange experiences. Paper presented at the Australian International Education Conference, 2006.
- Paige, R.M., Fry, G.W., Stallman E.M., Josić J., & Jae-Eun Jona (2009). Study abroad for global engagement: The long-term impact of mobility experiences. *Intercultural Education*, 20(1), 29-44.
- Pérez-Vidal, C., & Juan-Garau, M. (2009). The effect of study abroad on written performance. *EUROSLA Yearbook*, 9, 269–295.
- Reber, A. (2003). Some, perhaps surprising, consequences of the ‘cognitive Revolution’. *Cognition and Evolution*, 9, 102-115.
- Regan, V., Howard, M., & Lemée, I. (2009). *The acquisition of sociolinguistic competence in a study abroad context*. Bristol, UK: Multilingual Matters.
- Serrano, R., Tragant, E., & Llanes, À. (2012). A longitudinal analysis of the effects of one year abroad. *The Canadian Modern Language Review*, 68(2), 138-163.

- Simões, A. (1996). Phonetics in second language acquisition: An acoustic study of fluency in adult learners of Spanish. *Hispania*, 79, 87–95.
- Stevens, J. (2001). Study abroad learners' acquisition of the Spanish voiceless stops. *MIFLC Review*, 10, 137–151.
- Stevens, J. (2011). Vowel duration in second language Spanish vowels: Study abroad versus at-home learners. *Arizona Working Papers in SLA & Teaching*, 18, 77–104.

Appendix A: Questionnaire used to elicit information about the amount and type of input and practice. (Please note that this questionnaire was designed for a previous study that also included adult learners in addition to children).

Name and Surname: _____

1. What's your mother tongue? Catalan Spanish
2. With which language do you feel more comfortable?

Catalan Spanish Both
3. How old were you when you started learning English (if you are not sure about it, give an approximate age)? _____
4. Where did you live during your study abroad experience?

a. Home stay family

- i. Did they speak English? Yes No
- ii. Were there other foreigners living there? Yes No

How often did you speak English with the family members?

Days per week: 0 1 2 3 4 5 6 7

Hours per day: 0-1 1-2 2-3 3-4 4-5 +5

With what family member did you speak English the most? _____

b. In a dormitory

- i. I had a private room
- ii. My roommate was a NS of English or spoke English fluently
- iii. My roommate(s) did not speak English fluently

How often did you speak English with your roommates (if any)?

Days per week: 0 1 2 3 4 5 6 7

Hours per day: 0–1 1–2 2–3 3–4 4–5 +5

c. In an apartment by myself

d. In an apartment with NSs of English or people who were fluent in English

How often did you speak English with your roommates?

Days per week: 0 1 2 3 4 5 6 7

Hours per day: 0–1 1–2 2–3 3–4 4–5 +5

e. In an apartment with NNSs of English or people who were not fluent in English

f. Other. Specify: _____

5. How often did you attend classes during your study abroad experience?

Days per week: 0 1 2 3 4 5 6 7

Hours per day: 0–1 1–2 2–3 3–4 4–5 +5

6. On average, how much time did you spend speaking in English (with friends, teachers, family members, etc.)?

Days per week: 0 1 2 3 4 5 6 7

Hours per day: 0–1 1–2 2–3 3–4 4–5 +5

7. On average, how much time did you spend reading in English (newspapers, novels, magazines, internet, etc.)?

Days per week 0 1 2 3 4 5 6 7

Hours per day: 0–1 1–2 2–3 3–4 4–5 +5

8. On average, how much time did you spend listening to English (TV, radio, cinema, teachers, friends, etc.)?

Days per week: 0 1 2 3 4 5 6 7

Hours per day: 0–1 1–2 2–3 3–4 4–5 +5

9. On average, how much time did you spend writing in English (homework, letters, e-mails, etc.)?

Days per week: 0 1 2 3 4 5 6 7

Hours per day: 0-1 1-2 2-3 3-4 4-5 +5

10. On average, in which context do you think you have used English the most?

- a. At school or university
- b. With friends
- c. With my family members/roommates
- d. Others. Specify: _____

11. Apart from classes at school or university, have you taken any English courses?

Yes No

- a. If the answer is 'yes'

Days per week: 0 1 2 3 4 5 6 7

Hours per day: 0-1 1-2 2-3 3-4 4-5 +5

12. On average, how much time did you spend interacting with

- a. NSs of English

Days per week 0 1 2 3 4 5 6 7

Hours per day 0-1 1-2 2-3 3-4 4-5 +5

- b. NNSs of English

Days per week: 0 1 2 3 4 5 6 7

Hours per day: 0-1 1-2 2-3 3-4 4-5 +5

13. On average, how much time did you spend using a language other than English?

Which one(s)? _____

Days per week: 0 1 2 3 4 5 6 7

Hours per day: 0-1 1-2 2-3 3-4 4-5 +5

14. Have you taken any extracurricular activities (theater, sport, etc.)? Yes No

a. If the answer is 'yes', which one(s)? _____

Days per week: 0 1 2 3 4 5 6 7

Hours per day: 0–1 1–2 2–3 3–4 4–5 +5

15. What was your motivation to engage in this study abroad experience?

Appendix B: Data obtained from the questionnaire. Note that for these two groups of participants, there was not much variation (if any) in their responses because they were homogeneous groups exposed to the same experience.

TABLE 3

Appendix C: Story used to elicit the data

Tables

Table 1: Raters' L2 background information

Rater	FL 1	Level FL 1	FL 2	Level FL 2	FL 3	Level FL 3
1	German	6	Spanish	3	Italian	4
2	Spanish	3	French	5	Sign Language	5
3	German	2	Spanish	1		
4	Spanish	2	Tajik	3		
5	Spanish	3	German	1		
6	German	6				
7	Spanish	4				
8	German	2				

Results measured through a Likert scale where 1= beginner and 6= proficient (self-assessment); FL= Foreign Language

Table 2: Descriptive statistics on perceived degree of FA for each of the groups in the three tests

	Pre-test	Post-test	Delayed Post-test
AH	3.57 (0.67)	3.57 (0.13)	3.76 (0.40)
SA	3.51 (0.51)	4.04 (0.62)	3.96 (0.59)

Table 3 Appendix B

Question	SA	AH
Speaking English in general	M= 29.75 h/week	M= 4 h/week
Reading in English in general	M= 7 h/week	M= 3.16 h/week
Listening to English	M= 35 h/week	M= 4.3 h/week
Writing in English	M= 14.3 h/week	M= 2.83 h/week
Context where student used English most	Family: n= 7 School: n= 1 Friends: n= 0 Other: n= 0	Family: n= 0 School: n= 6 Friends: n= 0 Other: n= 0
Speaking with NSs	M= 29.75 h/week	M= 0
Speaking English with NNSs	M= 0 h/week	M= 4 h/week
Speaking another language	M= 7 h/week	M= +35 h/week