

Japanese vocabulary development in and beyond study abroad – the timing of the year abroad in a language degree curriculum. Published online in the Language Learning Journal, 15th April 2013. Published article available at DOI: 10.1080/09571736.2013.786119

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This paper reports the results of a study of vocabulary development by learners of Japanese during a year abroad in Japan. The particular feature of this study is that it compares the performance of two cohorts, studying in the same UK university and in degrees in Japanese, in which the period of study abroad is undertaken at different points of the degree — respectively in Year 2 and Year 3. Their performance is compared at three points in time: before and after the period of study abroad, and one year after return. The group going to Japan at a lower proficiency level (i.e. study abroad in Year 2) appears to benefit more in terms of absolute gains, although the two groups appear to perform rather similarly when their potential gains, i.e. gains against the test's ceiling, are considered. The two groups' gains in the year following the study abroad are considerably smaller than during the period abroad but remarkably similar to each other; however, these gains take place at different instructional levels. The implications are discussed for the timing of periods of study abroad.

Introduction

Several studies in the mid-1990s (Freed 1995; Milton and Meara 1995; Coleman 1996) drew attention to the lack of empirical evidence on the impact of an extended period of study abroad (SA), in spite of the generalized assumption - on the part of students and teachers alike - that it is an invariably beneficial and advantageous experience. Milton and Meara's (1995) paper provided convincing evidence that such benefits are far from universal. They found that with regards to vocabulary gains, advanced level students were unlikely to benefit much from studying abroad, and even reported cases of effective regression. They concluded that periods of SA at advanced levels are difficult to justify, and suggested that governments and educators strategically promote periods of SA for lower proficiency levels.

The study presented here was directly triggered by this provocative finding, and aimed at investigating the effects of SA on undergraduate students of Japanese, a context virtually unresearched at the time the study was set up. More than fifteen years after the first wave of research on the SA, there are now many works on this subject,

but, quite surprisingly, still comparatively few on the effects of SA on Japanese language acquisition (Sawyer 1992; Watanabe and Iwasaki 2009; Iwasaki 2010 and 2011; Hashimoto 1994; Marriott and Enomoto 1995; Cook 2006; Marriott 1995; Siegel 1995; Huebner 1995, Kizu, Pizziconi and Iwasaki 2013), and less than a handful on the acquisition of Japanese vocabulary (Dewey 2004, 2006, 2008). In view of the continuing advocacy for degree programmes that include a period of SA in Japan¹, this study aims to provide further empirical data to contribute to the research on this less studied language, and inform language educators and programme coordinators' pedagogical decisions.

There are indications that the SA context, when compared with regular language instruction in home institutions and domestic immersion programmes, is indeed beneficial in some areas of language proficiency: notably, lexical growth ratio (DeKeyser 1986, quoted in Dewey 2008; Milton and Meara 1995), passive vocabulary (Laufer and Paribakht 1998), fluency (Freed 1995b), narrative ability (Collentine 2004: 244), degree of vocabulary richness and networking (Foster 2009), as well as command of vocabulary for daily-life in the target country (Dewey 2008). However a few studies that compare SA with other learning contexts (see for reviews Freed 1995a; Collentine and Freed 2004; Dewey 2008) show that the SA is not invariably more beneficial when specific skills or specific aspects of proficiency are examined. Dewey (2008) notes that SA students' performance is at least comparable to that of immersion programme students on two measures of vocabulary (breadth and depth), and finds mixed advantages for the two groups in more detailed patterns of development within each test (Dewey 2008: 134-135). Mixed advantages on a range of grammatical and lexical features are reported by Collentine (2004), and by Martinsen et al. (2010), who compared traditional study abroad, foreign language housing, and service-oriented study abroad groups.

The context I investigated in this paper did not allow comparisons with a control group, as the year of SA is - a compulsory component of the BA Japanese degree at SOAS (School of Oriental and African Studies), University of London. However, a curriculum review, which repositioned the compulsory year of study in Japan from Year 2 to Year 3 of the four-year degree, became a serendipitous opportunity to test the effects of the *timing* of the SA period. The restructuring was triggered by pedagogic and educational, but also administrative and logistic reasons, and constituted a one-off chance to obtain not only some measure of the SA's putative benefits through a longitudinal study of two cohorts, but also to compare such benefits for two different proficiency levels. 'If resources dictate that most students will have only one chance at this opportunity, what is the most effective time in one's language learning career to spend in-country?', asked Brecht et al. (1995:38). This study aims to provide some empirical evidence to help Japanese language educators answer this question.

Learning context

The four-year BA in Japanese at SOAS has included a full academic year of study in Japan since 1996. Up until 2003/4, study abroad took place in Year 2 but this was changed to Year 3 in 2003/4. This study compares the last cohort undertaking SA in Year 2 (referred to as SA2) and the first undertaking SA in Year 3 of the programme (SA3).

Table 1 summarises the Japanese language curriculum for the two cohorts. Most students registering for this degree have some prior exposure to Japanese. Different learning backgrounds at the start of the degree are accommodated by means of different pathways (absolute and false beginners) with different numbers of contact hours but the same end-of-year achievement targets. Such multilevel competencies are common in current university degree courses, and this case study is arguably representative of many Japanese language programmes. The most relevant differences between the SA2 and SA3 cohorts in the present study are: (a) the intensity of pre-SA classroom instruction (one intensive year for SA2, compared with two years for SA3), and (b) the syllabus covered (a beginner syllabus only in SA2 programme, the beginner syllabus plus part of the intermediate syllabus in SA3.).

TABLE 1 AROUND HERE

This study did not target the learning conditions during the year of study abroad, a limitation I discuss below. All students were enrolled in programmes at Japanese universities which included both language and content courses², but the amount of contact hours, the access to regular academic courses with native Japanese speakers, the type of accommodation (e.g. foreigners only or mixed with Japanese students) and other factors were extremely variable, and this applies equally to both cohorts.

Previous studies and predictions

There are many studies on the effects of SA on language development (for reviews, see Brecht et al. 1995; Freed 1995, 1998; DuFon and Churchill 2006; Kinginger 2009; Regan, Howard, and Lemée 2009; the 2010 special issue of *Foreign Language Annals* 43, no.1) including many specifically on vocabulary (as noted above, and Fitzpatrick 2012, reporting increases in collocations and native speaker-like associations during SA). Since no previous study has investigated the performance of groups going abroad at different points in the curriculum, predictions had to be extrapolated from more general observations on vocabulary development patterns at different proficiency levels. Vocabulary gains during periods of residence abroad appear to be inversely proportional to pre-SA proficiency levels (e.g. Milton and Meara 1995) but only where gains are measured in breadth; Ife et al. (2000) show no support for this result when vocabulary organization (or depth) is concerned. A similar negative correlation was found for gains in listening and reading proficiency by Brecht et al. 1995, as well as by other studies on various aspects of proficiency quoted in Coleman 1996: 82.

While I expected both cohorts to improve in language proficiency during SA, regardless of the timing of their SA, it was less straightforward to hypothesize an advantage for one cohort over the other. On the one hand, extrapolating from previous studies (e.g. Brecht et al. 1995, Milton and Meara 1995), it could be hypothesized that SA2 students would improve more, given the steeper learning curve expected at lower proficiency levels, at least with regards to vocabulary size; see for example the qualifications in Ife et al. 2000, who report greater gains in single item knowledge than vocabulary organization for Intermediate learners, and the opposite for Advanced learners. On the other hand, the SA3 students might be considered to benefit from

greater linguistic, cultural and psychological preparedness as a result of their longer ‘incubation’ period before having to use in real life the linguistic knowledge acquired in the classroom. Davidson (2010), for example, found that learner control of language structure pre-SA is a predictor of gain; see also DeKeyser 2010. With two years’ study prior to departure rather than one, the SA3 cohort attended more disciplinary courses (including courses on intercultural communication as well as on Japan’s history and literature), and had longer preparation for life in Japan through informal reference during language classes, more focused consciousness-raising work in applied linguistics classes, and various orientation meetings.

I was particularly interested in looking at learners’ performance in the year following the SA because previous research characterizes this phase as showing little substantial progress, or even attrition (Coleman 1996a; Raffaldini 1987, quoted in Coleman 1996: 85). This contrasted with impressionistic teacher observations at SOAS, which suggested that returnees’ vocabulary would continue to grow, though perhaps not at the same rate, regardless of the timing of SA. My working assumptions for this research were thus as follows:

- (1) all students would show gains in vocabulary during the SA
- (2) the increase would be different for the two cohorts, in terms of (a) absolute size, or number of lexical items, and (b) growth ratio
- (3) all students would continue to progress in the year after return from SA.

Given the increase in our student population of learners from Chinese backgrounds, I also wanted to test whether the advantage commonly posited for learners with a logographic background would be magnified by the increased exposure to *kanji*³ in the linguistic landscape of the SA. This advantage is assumed to derive from (a) greater familiarity with Japanese writing systems enabling native-like processing strategies for both *kanji* and *kana*, as argued by Chikamatsu 1996; and (b) the phonological similarity of some Japanese characters (but only in Sino-Japanese readings) with corresponding Chinese characters. However, while this could potentially facilitate learners’ ability to capture semantic information, identify significant components/radicals or memorize previously unknown single characters or compounds (cf. Mori 1998) or character readings, no advantage could be assumed with respect to other aspects of vocabulary knowledge, such as readings of non-Sino-Japanese characters, morpho-syntactic behaviour or collocations. This suggests the possibility of advantage at lower proficiency levels (e.g. relating to vocabulary size or graphic representation) rather than at higher levels (e.g. relating to organizational competence). Both Koda 1989 and Hatasa 1992 (quoted in Matsunaga 1999: 89) found an advantage in the early stages of reading skills. However, Chikamatsu (1999) found that positive *kanji* knowledge transfer can lead to excessive reliance on this ability, to the detriment of listening skills, while Machida’s (2001) research suggests that Chinese students’ advantage in *kanji* knowledge does not invariably correlate with better reading skills. Many teachers indeed believe that the advantage for these students may be only psychological and may in fact induce misguided self-confidence, with a consequent reduced investment in study time.

The research

The vocabulary test

A vocabulary test was designed to measure (1) absolute vocabulary gain (raw scores) and (2) potential gain (see below). As shown in Table 2, there were three test points for each cohort: pre-SA, post-SA and one year after SA (SA +1). The vocabulary test was based on the vocabulary section of the Japanese Language Proficiency Test (JLPT), a standardized criterion-referenced test, designed to evaluate and certify language proficiency in Japanese as a foreign language. It has four levels, ranging from beginner (Level 4) to advanced (Level 1).⁴ The vocabulary section of the test assumes the following knowledge at the different levels.⁵

- Level 1 1926 *kanji* (or Sino-Japanese characters) and 8009 words.
- Level 2 1023 *kanji* and 5035 words.
- Level 3 284 *kanji* and 1409 words.
- Level 4 103 *kanji* and 728 words.

The format of the vocabulary section is multiple-choice and each target word is tested in one or another of the following types of tasks: gap filling (at sentence level), morpho-syntactic judgments of accuracy (including some collocations), matching of definitions, of synonyms, and of specific senses of a word (see indicative extract in **Error! Reference source not found.**). With the exception of gap filling, these tasks can be characterized as testing passive vocabulary knowledge. An anonymous reviewer suggested that vocabulary previously known only receptively may be, during SA, activated for productive use. Indeed this may well be the case, but as the test cannot distinguish the two, no conclusions can be drawn on the latter.

The test measures vocabulary size as the absolute number of lexical items correctly identified. However, successful recognition not only requires knowledge that a certain target word is indeed a possible word in the Japanese language, but also knowledge of the words in the prompts; see Milton (2009: 74) for a discussion of this format. The test also does not distinguish vocabulary breadth and depth, as it includes tasks such as recognizing a word's definition, its morphology, but also synonyms and collocations, which have to do with associative relationships.

A total of 46 questions were selected: nine from Level 1, 18 from Level 2, 12 from Level 3 and 7 from Level 4.⁶

Procedure

As shown in Table 2, the SA2 cohort took the test pre-SA at the end of Year 1, then post-SA at the beginning of Year 3 and one year after SA at the start of Year 4. The SA3 cohort took the test at the end of Year 2, then at the start of Year 4 and finally at the end of Year 4. Both the pre-SA and the post-SA tests were administered during a supervised hour following a regular class hour. The third SA+1 test was, however, more difficult to administer, and was sent to those students who were unavailable (half of those in SA3) via e-mail with instructions to follow to the same guidelines as those who took the supervised test. Their performance did not seem to differ, overall, from that of the students who sat the supervised test. Due to students' availability, there is a gap of one month between SA2's and SA3's third test. A slight attrition during this

additional summer month may possibly be reflected in the results for SA2.

TABLE 2 here

A total of 48 students were tested prior to the SA, but participant numbers declined over the course of investigation, due to the usual variety of students' circumstances. In order to maximize the validity of the results, the maximum possible numbers of questionnaires have been used for different questions. Hence although the number of students who sat all three tests was only eight in each cohort, when comparing pre- and post-SA results only, the total of 27 students (SA2 = 17 and SA3 = 10) who sat both these tests was used. When comparing results at the end of Year 2/start of Year 3, 17 students for SA2 and 18 for SA3 were included. Having covered more ground in absolute terms, although with a less intensive syllabus, the second cohort (SA3) can be characterized as having a relatively higher proficiency level.

Students' profile

The vocabulary tests (identical in all three testing sessions) were accompanied by questionnaires about biographical and attitudinal traits. Appendix 1 provides a synopsis of both the questionnaires' demographic questions (included in pre-SA version), and retrospective questions about the SA experience (added in the post-SA version). The questionnaires replicated many of the items contained in Coleman (1996)'s large scale survey of SA in Europe in order to obtain a comparable picture of the two cohorts in this research, together with information on factors that could potentially affect their language development.

Compared to the European language students in Coleman's study, the students in this study were far more diverse in terms of nationality, L1 and previous experiences of the target language country. They also had on average fewer years of study of the target language behind them at the time of testing. The vast majority of the students were between 19 and 25 years of age before the period of SA, and the majority (60%) were not native speakers of English. Of these, half had a European L1; the other half had different Chinese varieties as their L1. More than half (56%) had studied Japanese before enrolling on the degree programme in a variety of contexts including private tuition, evening classes, high school language classes in England or other countries, including Japan, on short home-stay programmes or school exchanges, or enrolled in Japanese schools. The majority (67%) had been to Japan before, most often on holiday, but also visiting family or friends, on home-stay programmes, school exchanges, working holidays or doing volunteer work. Most seemed driven by a specific fascination with Japan, rather than by a generic interest in foreign cultures, and most seemed to be intrinsically/internally motivated. Interestingly, the topmost rating of 'career', 'way of life', and 'like the language' as reasons for studying Japanese replicates the results of Coleman's 1996 survey of students of European languages.

Post-SA evaluation

Upon return to SOAS, the students declared that they had able to cope - sufficiently or rather well - with the demands of life in Japan. This result, however, is likely to be

biased as the participants who responded on their return from SA were evidently those who *had* been able to cope and were still sufficiently motivated to undertake further testing. Although the percentage of SA3 students declaring that they coped ‘very well’ is higher (90%) than for the SA2 cohort (65%), this difference turned out to be not significant. Almost all students (93%) felt they had made progress during the year in Japan; indeed, over 50% felt they had made ‘considerable progress’. More than half the students in each cohort (overall 60%) stated that they wished they could stay longer than the required one year. The percentage was higher for SA3, but not significantly so. A third of the group expressed mixed feelings about returning to SOAS, and only two students (both in SA2) said they looked forward to returning.

The students seem to be rather satisfied with the programme at the home institution even after the year of study in Japan; 74% overall agreed or strongly agreed that ‘studying at [XX University] is as motivating as studying in Japan’ with the difference between the two cohorts again being non-significant (71% for SA2 and 80% for SA3). There was 93% agreement that the SA had motivated them to study further, again with no significant difference between cohorts (88% for SA2 and 100% for SA3). These results arguably testify to the value of the SA as a psychologically motivating experience that is positively evaluated in retrospect, but that also has potential positive effects on the students’ future undertakings (cf. Dwyer 2004).

Results

Lexical gain (actual absolute gain)

As shown in Table 3 and Figure 1, both groups showed an improvement in lexical knowledge after one year in Japan.

TABLE 3 and FIGURE 1 here

A mixed 2 x (2) ANOVA was performed with Group (SA2: SA3), $n = 17, 10$ as a between-groups variable and Time of Testing (pre-SA: post-SA) as a within-group variable. The main effect of group approached, but did not reach, significance ($F(1, 25) = 3.89, p = .06$) but there was a main effect for Time of Testing, showing that both groups scored higher after SA than before ($F(1, 25) = 118.13, p < .001$). The interaction between Group and Time of Testing was significant ($F(1, 25) = 7.79, p = .01$), showing that the SA2 cohort increased their vocabulary knowledge more than SA3.

Pre-SA vocabulary scores show that the SA3 students knew more words than SA2 students. It should be remembered, of course, that SA3 had accumulated more instructional time prior to departure for Japan. The post-SA tests, on the other hand, show that the two cohorts reached a comparable level of vocabulary after their SA period (at the end of Year 2 for SA2 and Year 3 for SAS3). Contrary to Freed (1995b: 142), the lower proficiency SA2 cohort thus showed comparatively more vocabulary gains during the year abroad, improving by an average of 9.47 words, compared to an average of 5.60 words for SA3. A negative correlation was found between pre-SA scores and actual vocabulary gain: $r = -.65, p < .001$. These results suggest that the ‘extra’ term of additional intermediate syllabus covered by SA3 does not provide a constant advantage over the length of the course (or that the test has a ceiling effect). The greater gains of the lower proficiency students in this study are consistent with the

findings of Milton and Meara (1995: 18), but, unlike their study, no student in this population appeared to regress during the period of SA, and only one student (at a comparatively high proficiency level in SA3) had the same score before and after SA.

Both groups show considerable variability across individual scores, although SA3 is more homogenous than SA2. This variability becomes less noticeable after the SA period: the Standard Deviation is higher for the pre-SA tests than for the post-SA tests (6.13 vs. 4.19 for SA2, 4.97 vs. 4.03 for SA3). The SA thus appears to ‘level out’ differences, and since both groups improve, this homogenization confirms the greater contribution of lower scoring students to overall improvement (cf. Milton and Meara, 1995: 25). The same trend is observable in Coleman’s (1996a) study, but see Ife et al (2000) for different conclusions.

Lexical gain (potential gain)

In addition to the measure of absolute gain, the learners’ ‘potential’ vocabulary gain was calculated as follows: first, each participant’s pre-SA vocabulary score was subtracted from the maximum possible score (46). This provides a measure of the maximum (testable) number of words the participants could have learned during the SA period, or their ‘gain capability’. Then, for each participant, we calculated the percentage increase out of his/her potential increase using this formula: $100(\text{absolute vocabulary increase})/\text{gain capability}$. The resulting figure represents the participant’s vocabulary gain as a percentage of the number of words s/he would have had to learn in order to score 100% on this test.

In terms of potential gain, there is no effect of timing of SA on vocabulary increase. The mean potential vocabulary gain was descriptively higher for the SA2 group ($M = 38.79\%$, $SD = 12.56\%$) than for the SA3 group ($M = 29.84\%$, $SD = 14.50\%$), but a between-groups t -test revealed that the difference was not significant ($t(25) = 1.69$, $p = .103$). Pre-SA scores do not correlate with potential gain ($r = -.028$, $p = .891$), showing that there is no relationship between the number of words known before SA and the percentage of words actually learnt out of the total number of words that could have been learnt during SA. In other words, pre-SA scores do not predict percentage of increase. As in Milton and Meara’s population (1995: 25), ‘subjects with identical entry scores do not make identical improvement’.

Comparison of cohorts after Year 2

Although this study could not include a genuine control group, having two cohorts taking the year abroad at different points in the curriculum provided a ‘pseudo’ control. I therefore compared the results of the two cohorts after Year 2, at which point one had spent a year in Japan, while the other had not. This comparison shows that, after two years of Japanese, students having completed a period of study abroad showed significantly greater vocabulary knowledge than those who had not: the SA2 group scored higher on their post-SA test ($n = 17$, $M = 30.76$, $SD = 4.97$) than SA3 on their pre-SA test ($n = 18$, $M = 25.83$, $SD = 4.66$). An independent samples t -test revealed a significant effect: $t(33) = 3.03$, $p = .005$.

Native language(s) and vocabulary gain

In order to explore whether linguistic background had any effect on vocabulary gains, the participants were divided into two groups: native users of European languages and native users of Chinese. The 19 European language users spoke Romance or Germanic languages (11 English, three Italian, two German, one French, one Finnish, one French-Spanish-English). The remaining eight were native users of Cantonese or Modern Standard Chinese (three native speakers of Cantonese, one of Mandarin, one unspecified Chinese, two Cantonese/English and one unspecified Chinese/English). Results, given in Table 4, showed no significant differences between the two groups, either in pre-SA vocabulary scores, nor in either actual or potential gain (for actual gain, $t(25) = .35, p = .730$; for potential gain, $t(25) = -.04, p = .967$).

TABLE 4 here

Timing of SA and vocabulary knowledge one year after SA

The vocabulary test was completed one year after SA by eight students in each cohort.⁷ As shown in Table 5 and Figure 2, both cohorts scored an average of 34.50 (SA2 $SD = 4.90$, SA3 $SD = 5.83$). A mixed ANOVA showed a significant effect for Time of Testing (pre-SA/post-SA/1 year post-SA): $F(2, 28) = 46.51, p < .001$. There was no effect for Group (SA2, SA3): $F(1, 14) = .36, p = .558$, and no interaction, $F(1, 14) = 2.10, p = .169$. Pairwise comparisons revealed that participants overall scored lower in the pre-SA test compared with the post-SA test ($p < .001$) and the SA+1 test ($p < .001$), but no significant differences could be observed between post-SA and SA+1 scores ($p = .143$).

FIGURE 2 and TABLE 5 here

Discussion

The results of this study are in line with previous literature, pointing to initial vocabulary knowledge as the main predictor of gains during the SA: students with lower vocabulary scores prior to study abroad gain more (Milton and Meara 1995). The results for actual absolute gains show that SA2 students, who started the SA at a lower proficiency level, improved significantly more than SA3 students. A possible, often mentioned, explanation for such a finding may be the ceiling effect(s) of the test, i.e., there is less room for improvement in absolute terms for pre-SA higher scorers than for lower scorers (Milton and Meara 1995: 19). Further, multiple-choice tests such as the Japanese Language Proficiency Test, may fail to capture improvement at higher levels of proficiency since the higher the level, the larger the learners' vocabulary that we want to sample and the lower the sampling rate (Meara and Buxton 1987: 144). Moreover, the higher the level, the more idiosyncratic the learner's vocabulary becomes, while test items include fewer high frequency words.

Alternatively, these results could indicate a distinctive pattern of growth for higher and lower proficiency students, explained by a reduced need for more advanced students to expand vocabulary breadth once they have reached a level of vocabulary proficiency sufficient for their communicative needs at the time. Improvement for more advanced learners may best be measured in terms of depth and fluency, or vocabulary

organization (cf. Milton 2009: 234; Meara 1996; Ife et al. 2000). Although some items of the JLPT would have required some degree of lexical organization competence, it does not attempt to specifically target this construct.

However, if we accept the potential bias of the testing package, and observe learners' behaviour within the constraints of what is measurable and effectively measured, the patterns of gain in the two different cohorts appear to be remarkably similar. In other words, if we compensate for the high scorers' reduced ability to demonstrate improvement by measuring the number of words that were learnt out of the total that could have been learned (or rather tested), both cohorts seem to have performed in the same manner: the results of absolute gains are contradicted by the results out of potential gain. The measure of absolute gain may be deceptive: the SA seems to have a consistent beneficial effect, regardless of the absolute level of proficiency. This result suggests that going abroad in Year 2 or 3 makes little difference, because learners gain equal potential proportions of vocabulary whatever the timing of the SA. Taking into consideration the greater scope for improvement of the lower proficiency group, going abroad at an earlier stage simply *appears* to be more beneficial.

Another problem often mentioned in research on the effects of study abroad programmes is the lack of control groups (e.g. Ife et al. 2000: 68). As noted above, studies that do compare SA students with 'at home' students, i.e. those in regular academic instruction, report that, with regards to growth ratio, passive vocabulary and fluency, SA students typically outperform 'at home' students, though not necessarily those in immersion programmes (cf. Dewey 2008:76). Our results show that after two years of formal training in Japanese, students who have completed a period of SA (i.e. SA2 post-SA) perform significantly better than those who have studied only at home (SA3 pre-SA). This confirms previous research on growth ratio (DeKeyser 1986, quoted in Dewey 2008; Milton and Meara 1995) and on passive vocabulary (Laufer and Paribakht 1998). Nevertheless, there are some qualifications to this result. It is unlikely that the test itself was biased in favour of SA learners (cf. Dewey 2008's use of the Situational Vocabulary Test, which includes vocabulary 'useful for functioning in everyday situations, e.g. words used on signs, trains schedules, menus') but it could be argued that a potential 'practice effect' benefitted the SA2 students who were taking the test for a second time after their study abroad, while the SA3 students were taking it for the first time. However, the students were not allowed to retain the test script and were not told that the test would be repeated in the same format. It seems unlikely that they would have remembered previously unknown individual items after a full year spent in Japan. Perhaps more significantly, it should be noted that the SA2 cohort who completed the test post-SA were a more self-selecting, and potentially a more committed, group than the SA3 cohort completing the test pre-SA. In SA2, only 17 of the original pre-SA class of 30 completed the post-SA test, but in SA3 the pre-SA test was completed by all participants. This could conceivably contribute to SA2's significantly higher score (SA2: $M = 27.00$, $n = 17$; SA3: $M = 25.83$, $n = 18$ respectively). Further, the SA2 cohort received a more intensive programme in their first year of study than the SA3 cohort, covering the same syllabus in that one year whereas SA3 covered it in eighteen months. It could be argued that SA2 was thus at a relative advantage at the end of the first year of study. SA2's better performance at the end of the second year may be a delayed effect of that earlier advantage rather than the

mere effect of the period of SA (although the SA may well ‘magnify’ it). With these caveats, however, our findings do confirm that study abroad has a significant impact on vocabulary development when compared to ‘at home’ study.

The results of the analysis of students’ linguistic background and vocabulary gains showed no advantage for students with Chinese, a logographic language, as their native, or among their native language(s). Most of the items in the questionnaire were presented in *kana* in order to reduce the role of *kanji* knowledge in assessing lexical knowledge. This suggests, at least for the intermediate proficiency levels examined here, that the naturalistic SA context does not benefit more, or provide more learning opportunities for, learners already familiar with logographic systems: vocabulary knowledge is complex and multidimensional (Nation 1990; Milton 2009:13).

An often-mentioned common wisdom about post-SA lexical development patterns – for which there is surprisingly little empirical evidence, but see Coleman (1996a) - is that growth slows down considerably upon return from SA, as attrition begins. All students in this study continued to receive formal instruction in the year after return but the amount and nature of this input was limited (a minimum of 3 contact hours per week) compared to SA. No significant gains in vocabulary knowledge were observed during the year following the SA. There was also considerable cohort-internal variation, with almost a fifth of students showing signs of attrition. In line with previous research reporting an inverse correlation between initial language proficiency level and attrition (Nagasawa 1999), the three students whose scores regressed in the SA+1 test, were indeed among those with lowest initial scores.

The scores on the SA+1 test were identical for the two cohorts. Although the small number of participants does not allow strong generalizations, it is interesting to observe that during the year of study at home following the SA, their improvement patterns were undifferentiated. Any differences between the two cohorts (in ‘intensity’ of the syllabus pre-SA, the overall length of instruction at home before the SA, i.e. one vs. two years, and the timing of the SA itself) are ‘neutralized’ at the end of the SA period, at which point the two cohorts, with regards to vocabulary, perform roughly at the same level (cf. Table 5 and Figure 2). They appear to progress in a similar fashion from then on, throughout the following year. They do so, however, at different instructional levels, for at that point SA2 has attended third year courses (and has one more year of instruction ahead), while SA3 has completed fourth year courses and proceeds to graduation. It could then be argued that moving the period of study abroad from the second to third year reduces, over the course of the same four-year degree, the amount of acquired/acquirable vocabulary (though attrition in the second year after return would also be possible, failing the provision of suitable and sufficient input). With regards to attainment levels in vocabulary size at the end of a four-year degree, it seems that the combination of intensive instruction and early timing of the SA have the potential to produce the highest gains.

The questionnaire responses (Appendix 1) show that the SA3 cohort rated the year abroad and their own performance consistently higher than the SA2 cohort. However, the difference turned out not to be significant. In light of the previous observations about the possibility that the new curriculum shortens, overall, a students’ trajectory of vocabulary development within the course of a degree, the unchanged positive evaluation of the overall experience by students in the new curriculum at least suggests that benefits other than vocabulary growth may have remained constant.

Limitations of this study

The research reported here was not able to explore factors affecting students' learning environment during the year abroad, such as the amount of formal instruction vs. untutored exposure to the target language, or levels of integration (cf. Dewey 2006, 2008; Ife et al. 2000; Ife 2000; Ginsberg and Miller 2000), all of which may have been relevant to gains in vocabulary. Currently, there is little coordination of the Japanese curriculum between the home and SA host institutions, and the provision of language courses in Japan is variable in nature, range, and intensity (see Pizziconi 2008). Some students had the chance to attend regular discipline-based degree classes together with Japanese students; some only attended Japanese language classes. These could range from 3 to 18 hours per week. Milton and Meara's study (1995: 28) unexpectedly found that study time correlated negatively with vocabulary gains, although they consider this an index of students' ability to integrate, rather than a causal factor affecting language development (but see Dewey 2008:138-40 on the effects of time spent on instruction, speaking with friends, or using the Internet). The recent study by Klapper and Rees (2012:345) also lists among the factors potentially affecting learning "random individual circumstances", such as the arbitrary nature of living arrangements, or the quality (not just the quantity) of language courses provision in the host university, on which my learner sample too had little control.

As noted above, SA+1 showed little attrition in both cohorts, but whether SA2 would have progressed further or shown more signs of attrition in a SA+2, i.e. at the completion of their degree programme was not tested. Therefore the observations above about a potential advantage for SA2 remain speculative.

The reliability of the JLTP's multiple-choice format is problematic, for the reasons clearly outlined by Meara and Buxton (1987): the knowledge tested is not only that of the target item but also that of the contextual prompts, and the sampling rate falls as vocabulary size increases. The JLTP test also does not distinguish active and passive vocabulary, being mostly a measure of the latter, and it targets vocabulary breadth but not depth, which may be a discriminator of higher proficiency (Ife et al. 2000). The decision to include mostly items from Levels 2 and 3 was based on the assumption that this is where the majority of students would have found themselves in the course of the degree. In retrospect, the inclusion of more Level 1 items may have allowed for a more precise indication of vocabulary proficiency in high achievers. Finally, although the sources for the JLPT arguably reflect frequency, the test provides no indication of it. Compared to the wealth of tests available for English as a second language, research on Japanese vocabulary testing instruments is lagging behind. However, since the time this study was carried out, several important works by Dan Dewey have appeared on Japanese that offer a research baseline for this language. Dewey (2008) in particular addresses the issue of multiple measures of vocabulary development (Laufer and Paribakht 1998; Collentine 2004; Collentine and Freed 2004; Dewey 2004), and includes the use of a frequency data base. Improving research instruments is clearly crucial for any future research on vocabulary.

Conclusions

The conclusions we can reach on the basis of this study confirm the general perception that the year abroad is an important event, in terms of students' linguistic as well as personal, growth. Its benefits are evident in the two cohorts examined, who were undertaking study abroad at different proficiency levels. Levels of perceived progress and personal satisfaction were high for both cohorts, and in this regard, the questionnaire results provided no evidence that postponing the year of SA by one year had any impact on the students' experience, or their evaluation of it. With regard to vocabulary growth, the issue is more complicated, but our first prediction, that all students would show an increase in vocabulary size during the SA, was confirmed.

The second prediction was also confirmed in that differences were found between the two cohorts. With regards to vocabulary size, it appears that the lower proficiency students of SA2 increased their knowledge more than the higher proficiency students of SA3. However, in terms of growth ratio, when this is measured in terms of potential gain, the two cohorts seem to perform very similarly, and both appear to benefit in equal measure. The third hypothesis tested progress in the year following the SA, and this was also confirmed, showing that students' vocabulary continues to grow upon return, if at a much slower rate.

Based on these results, the fact that that the curricular change that prompted this study produces, with regards to vocabulary performance, comparatively less proficient students at the second year point may seem an undesirable result. Indeed, with regard to improvements on vocabulary size, we must conclude that going to Japan at a lower proficiency level following intensive pre-SA language training enables greater gains during the SA, and possibly a long-term advantage in terms of attainment levels after four years. However, this conclusion needs to be considered in the wider academic context, insofar as the new curriculum potentially offered other types of benefits that this study would not have measured. For instance, the more extended training in content subjects in the pre-SA programme⁸ had implications for students' ability to tackle academic subjects while in Japan, and consequently to prepare for their post-SA Independent Study Project (a 10,000 word academic essay). Other advantages for both the students and the institutions involved had to do with the (delayed) timing of applications to the host institutions, the pre-SA availability of student records, and other administrative procedures. Moreover, two years of preparation instead of one also gave uncertain students the possibility to change programme of study before having to commit to a year of study abroad (a possibility that indeed a few students made use of). Although not statistically significant, SA3's post-SA questionnaire evaluations regarding ability to cope, and prospects of improvement following the SA, were consistently more positive than those of SA2. On balance, a reduced vocabulary improvement may be the price to pay for accommodating these other benefits in the context of a BA programme.

Both cohorts appear to continue to develop their vocabulary knowledge, albeit at a slower pace, in the year following return. This would suggest that final year courses in the new curriculum are at least as effective as the post-SA courses in the old curriculum; they would appear to provide, as Meara (2005: 76) has recommended, an 'environment which is rich enough at least to delay vocabulary attrition, one which, for example, involves extended projects requiring extensive use of authentic texts on different topics.' The Independent Study Project, requiring use of Japanese sources, and

the Advanced course, which includes extensive reading, essay writing, and oral presentations, seem to be effective means of retaining productive as well as recognition skills.

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Notes

- 1 A Japan Foundation report of 2007 indicates that half of 32 UK institutions surveyed (and all of the major institutions offering degrees in Japanese) demand a compulsory period of residence abroad, in most cases one full academic year. The report is available at <http://www.jfjssurvey.org.uk/archive2007/survey/index.html>. The four largest programmes (Leeds, Oxford Brooks, Sheffield, SOAS) sent over 600 students in the four years between 2008 and 2011.
- 2 There were nine different host institutions for the SA2 cohort and 16 for SA3.
- 3 Japanese script is represented through three different systems: a logographic system (*kanji*) generally carrying the semantic or phonetic value of a lexeme, and two syllabaries: *hiragana*, normally used for indigenous words (including particles, inflections, and other grammatical information), and *katakana*, normally used for words of foreign origin. Japanese can be written using only the syllabaries, but only *kanji* can disambiguate homonymy, and *kana* are required in any ordinary texts for non-novices. Knowledge of *kanji* effectively constrains knowledge of lexicon: it affects learners' ability to read a word that they may know phonetically. Due to the nature of the research instrument, 'vocabulary' in this study therefore includes *kanji* competence.
- 4 The JLPT test, available since 1984, is administered by the Japan Foundation. The version of the test used here (predating the 2010 revision) had three sections: Writing-Vocabulary, Listening, and Reading-Grammar. Level 2 is normally reached after 600 hours' study (after completion of an intermediate course), Level 3 after 300 hours (after an elementary course), and Level 4 after 150 hours (corresponding to the first half of an elementary course). Further details of the 1984-2009 version are available at: <http://ebookbrowse.com/jlpt-guidelines-2009-pdf-d295930361> (retrieved 23.02.2013).
- 5 The breakdown of vocabulary levels mentioned here can be found at http://en.wikipedia.org/wiki/Japanese_Language_Proficiency_Test (as retrieved at 23.2.2013). The vocabulary for Levels 4 and 3 is derived from a survey of 11 Japanese language textbooks for beginners and other resources on the use of Japanese in instructional contexts, while the vocabulary for Levels 2 and 1 is based on a range of sources from JSL textbooks, Japanese junior and senior high school vocabulary surveys, newspapers, magazines and other surveys of usage among educated speakers (cf. Kokusai Koryū Kikin and Nihon Kokusai Kyōiku Kyōkai 2002). The official vocabulary lists are available at: <http://www.thbz.org/kanjimots/jlpt.php3>
- 6 The internal validity of the levels was confirmed by the fact that in both cohorts the percentage of correct responses decreased as the level increased.

- 7 For both cohorts, this is a reduced sample compared to the pre-SA and post-SA tests, as not all students took the test one year after return. Although the means shown in Table 3 (SA2 N=17 and SA3 N=10) and Table 5 (SA2: N=8 and SA3: N=8) are slightly different, the percentages of growth are very similar.
- 8 Under the 'old' curriculum (i.e. SA2), students only took one discipline-based unit prior to SA as opposed to four in the new curriculum (SA3).

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