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Sheltered curricular exposure and unsheltered extra-curricular exposure as factors influencing the development of academic proficiency in ESL

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Abstract

The purpose of the study reported here was to investigate the relation between the level of 'academic' proficiency in English as a second language attained by a sample of Bahraini university students and two qualitatively different kinds of exposure to the language: extra-curricular exposure outside the formal environment of the classroom and sheltered curricular exposure through English-medium instruction in subjects other than English language. The results demonstrate a significant association between both kinds of exposure and proficiency for the sample as a whole. However, further analysis of the data reveals that there is no significant correlation between extra-curricular exposure and proficiency at relatively high or at very low levels of attainment: extra-curricular contact, it seems, exerts a beneficial influence on the development of academic proficiency only with relatively modest achievers up to about the intermediate level. On the other hand, curricular exposure through English-medium instruction across a range of different subject areas was found to exert a significant influence with the more proficient as well as the less proficient students, although not with outright failures. In this report, I first discuss the relevant research literature and the background and rationale of the present study and then present an analysis and interpretation of the statistical findings. I conclude by considering the pedagogic implications of the findings for different categories of learners and the theoretical implications for Krashen's Comprehensible Input Hypothesis.

Introduction

It has long been a widely held view that the level of proficiency attained in a foreign language is directly influenced by the amount of exposure the learner has to the target language in its natural settings. This view has a lot of common sense appeal and sustains the long-established practice of universities in Britain and elsewhere of sending their modern language students abroad for a

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year to a country where the target language is spoken. It is also supported by a number of empirical studies in both foreign and second language situations that set out to determine the influence on learning outcomes of informal contact with the target language (cf. Carroll 1967; Upshur 1968; Hale and Budar 1970; Mason 1971; Gardner and Lambert 1972: 46 ff.; Burstall 1974; Fathman 1975; Obanya 1976; Dittmar and Klein 1977; D'Anglejan 1978; Johnson and Krug 1980; St Martin 1980; Housen and Beardsmore 1983 and Gradman and Hanania 1991). However, other researchers have found that the amount of exposure learners have to the target language outside the classroom is less significant than the amount of formal instruction they receive (cf Krashen, Seliger and Hartnett 1974; Krashen and Seliger 1976; Brière 1978; Chihara and Oller 1978; Krashen, Zelinski, Jones and Usprich 1978; Oller, Perkins and Murakami 1980; and Spolsky 1989). The conclusion Krashen (1981 and 1982) draws from a review of the research literature is that insufficient exposure to the target language, or the wrong kind of exposure may fail to trigger off the language acquisition device. Only if the learner experiences sufficient meaningful interaction in the target language can he "pick up" the language without the benefit of formal instruction.

The idea that not all forms of contact with the second language are equally beneficial is intuitively appealing but has so far lacked compelling empirical support from comparison studies. Although there has been a certain amount of discussion on the effect of subject-matter learning in the target language, especially in connection with immersion programmes (cf. Saegert et al. 1974; Stern et al. 1976; Cummins 1979, and 1980; Bye 1983; Wigzell 1983; Wesche 1984; Edwards et al. 1984; Yu and Atkinson 1988), I am not aware of any study that sets out to compare the influence of exposure through subject-matter learning with the influence of extra-curricular exposure outside the formal environment of the classroom on the development of academic proficiency in the target language. The primary purpose of the present study is to determine whether sheltered curricular exposure to the target language through English-medium instruction in subjects other than English language is more (or less) conducive to acquisition than unsheltered extra-curricular exposure to the language. At the same time, however, it investigates the possibility that the benefit to be derived from both kinds of exposure depends upon the level of proficiency of the learner.

Background

In many respects, Bahrain approximates more to an ESL than to an EFL environment. Certainly, the classroom is far from being the only source of comprehensible input for Bahraini learners of English. There is a very large English-speaking expatriate community on the island (approximately 25 percent of the

total population) with whom most middle-class Bahrainis come into regular contact in their everyday lives both at home and in their place of work. Much of the instruction in tertiary institutions is through the medium of English and a good working knowledge of English is considered a prerequisite for many of the most sought-after jobs, especially in the private sector.

Despite the pervasive presence of English-speaking expatriates in all strata of society and in most work environments; however, there is very little social interaction between the two communities. Schumann (1978) maintains that 'acculturation' is the major causal variable in second language acquisition, and if this was so, one would expect Bahraini learners of English to be severely handicapped in their efforts to acquire an adequate working knowledge of English. Applying Schumann's measures of 'social distance', one would judge impressionistically that most Bahraini learners of English are socially very distant indeed from the target language community. Neither group is socially dominant (positive), but the learner group does not attempt to assimilate or acculturate with the target language group (negative); it does not, by and large, share the same 'enclosures' (negative); it is relatively large and cohesive (negative); the cultures are highly incongruent (negative); the attitudes of the two groups towards each other are on the whole tolerant (neutral); and the length of residence in a target language area is minimal (negative).

Yet most middle-class Bahrainis do acquire an adequate level of communicative proficiency in the language and many achieve a high level of academic or professional proficiency. Although there is very little social interaction, plentiful opportunities for developing listening and reading skills in the language are available through abundant aids outside formal learning environments in the form of English radio and TV channels, local English language newspapers, advertisements and road signs in English, etc. Many middle class Bahrainis, furthermore, have occasions to speak the language regularly with house servants, nannies, shop assistants, tradesmen, etc, as well as with colleagues and others at work. As for the University of Bahrain, the campus provides an extremely 'acquisition-rich' environment. Instruction in all subjects other than Arabic, Islamic Studies, the Social Sciences and Education is in English and approximately 40 percent of the teaching faculty are non-Arabic speakers. Many of the support staff with whom students come into regular contact (secretaries, cleaners, cafeteria assistants, maintenance personnel, etc) are also non-Arabic speaking expatriates and for the most part competent speakers of English. Although most of the students are Arabs, many have had some English-medium schooling and like to speak English with each other on campus. With regard to instructional resources and facilities, the English Language Centre and the Department of English jointly provide four self-access learning laboratories rigged for video-, audio- and computer-assisted learning, two self-access reading laboratories, and an extensive video- and audio-cassette li-

brary. The English-teaching faculty includes thirty-five native-speaker instructors, who are available during their office hours for regular communicative contact, and a number of native-speaker language assistants who run communicative workshops for small groups of students. In addition, there is an active English Society which brings students into regular contact with the language by arranging debates, public speaking competitions, guest lectures, overseas visits, and so on. It is a reasonable assumption that learners' engagement in various curricular and extra-curricular listening, speaking and reading activities will compensate, at least to some extent, for their lack of natural social interaction with the target language community and that the more informal contact learners have with the language outside the English classroom in whatever form, the higher will be their level of proficiency. This assumption derives some support from Al-Ansari's study (1985) on the influence of environmental factors on the level of attainment of EFL learners in Bahrain, which showed a correlation coefficient of.4 ($p<.01$) between functional use of the language outside the classroom and the level of attainment in English of third-year secondary school pupils.

Rationale

Over the past few years, however, the impression has been growing among the English-teaching faculty at the University of Bahrain that as students advance with their English studies and are required to use the language increasingly for academic purposes, extra-curricular exposure to the language becomes increasingly less relevant. The consensus view is that at some point other factors, which for convenience of exposition at this point might be referred to collectively as 'general academic ability', begin to cut in and assume a dominant role. The importance of this general ability factor is quite clear by the time students approach graduation level: students who have high general academic ability as evidenced by their cumulative grade point average (cgpa), which measures their level of success across a wide spectrum of academic subjects within the liberal arts programme followed at the University of Bahrain, perform significantly better on the TOEFL than students with relatively low general ability. A highly significant correlation coefficient of .66 ($p <.001$) was found to obtain between the cgpa and the TOEFL scores obtained by 54 graduating English majors over a period of four semesters.

Although there is a feeling that extra-curricular exposure has a diminishing effect beyond the intermediate level, however, there remains a strong impression that sheltered curricular exposure through subject matter instruction in English continues to exert a positive influence throughout the undergraduate programme. This impression is reinforced by the fact that Science students, who receive most of their instruction through the medium of English, perform

consistently better in English language proficiency tests than Arts students (including English majors), who generally receive much less English-medium instruction than the Science students. It is also the case, however, that Science students at the University of Bahrain are, generally-speaking, academically more gifted than Arts students – a judgement which is borne out by the fact that the admission requirements for entry into the BSc. programme are significantly higher than those for entry into the BA programme. This fact needs to be borne in mind when evaluating the results of the present study.

Since the factors that influence acquisition bear directly upon the choice of teaching strategies and the allocation of instructional resources, it is obviously of considerable pedagogic relevance to know at what level, if any, the significance of extra-curricular contact with the language as a factor influencing acquisition begins to decline and with which type of student. It is no less important to know whether subject-matter learning in English exerts a significant influence on proficiency levels, and if so, how early in the programme. It was decided to start by investigating the relation between each of the two variables and the level of proficiency attained at the first-year undergraduate level, which in the Bahrain context means after students have completed nine years of English instruction in the schools and a one-year preparatory programme at the University, a major component of which is an intensive English language course providing 12 hours of formal instruction per week over two semesters.

The present study, however, was not motivated solely by practical considerations. A critical issue in second-language acquisition studies is whether, other things being equal, certain kinds of input in certain kinds of environments are more likely to be absorbed as 'intake' than others. Of course, in language acquisition other things are very rarely if ever equal, but by comparing the influence of two quite different kinds of input on attainment in respect of a relatively homogeneous group of ESL learners, we might hope to gain some insight into the kind of input and the kind of environment that favour acquisition and those that do not. Sheltered curricular exposure to the target language through English-medium instruction would seem intuitively to be a qualitatively different and potentially much richer source of intake than other, less sheltered kinds of exposure, particularly as far as the development of academic proficiency in the target language is concerned (Krashen 1982: 62 ff. and 1985: 70–72; Wigzell 1983; Burger et al 1984; Wesche and Ready 1985). In an English-medium classroom, the level of input is usually consciously controlled by the subject teacher and kept either within or only slightly above the student's level of proficiency, the input is intrinsically relevant since it forms part of the student's chosen programme of study, and the student's focus is primarily on the comprehension of the message conveyed and not on the linguistic form of the input. Moreover, since classes at the University of Bahrain are generally small (rarely above 25) the students have ample opportunity both

in and out of class to negotiate meaning with their instructors by trial and error manipulation of the target language structures and lexis (see Swain 1983 on the role of comprehensible output as a source of acquisition). It remains to be seen, however, whether the impression that sheltered subject-matter learning through English-medium is a richer source of intake than unsheltered, raw exposure to the language outside an academic environment is borne out by the following research evidence.

Subjects

The sample consisted of 155 students from various degree programmes taking a common first-year level English language course as part of their college requirements. Generally speaking, a student's specialisation at the University of Bahrain determines the amount of instruction in subjects other than English language he or she receives through the medium of English. Thus, Science majors might receive as much as 80 per cent of their instruction in English, whereas, at the other extreme, Arabic or Islamic Studies majors might receive as much as 80 per cent of their instruction through the medium of Arabic. Although drawn from different specialisations, the group was highly homogeneous in terms of age, nationality, mother-tongue, and cultural and educational background. In this respect, it contrasts with the samples used in many other second language acquisition studies. Much of the research reported in the literature has been carried out with linguistically and culturally heterogeneous groups whose members may be assumed to have been open to a much wider range of background influences than the sample used in the present study.

Contact measures

A self-report questionnaire in two parts was developed in Arabic for the purpose of measuring the amount of curricular and extra-curricular contact that students have with the language. The first part of the questionnaire was designed to measure the amount of extra-curricular contact and the second part the amount of curricular contact through English-medium instruction in subjects other than English language. The researcher was conscious of the need to keep the questionnaire fairly short and simple, having learnt from experience that junior students tend not to respond or to respond carelessly and inconsistently to long, complex questionnaires. The questionnaire was administered to small groups of students at a time with the researcher present to clarify questions and elicit, where necessary, appropriate responses.

In designing the first part of the questionnaire, it was necessary to make certain judgements concerning the kind of extra-curricular contact that Bahraini students might realistically be expected to have with the language and which they could readily quantify. It was decided to ignore writing completely, mainly

because very few students at this level are engaged in any kind of extra-curricular writing activity in English. As far as the included items are concerned, their purpose was to measure only the amount of exposure to the target language, not the quality of the exposure. It has been suggested that in designing a questionnaire intended to measure linguistic input from informal environments, certain kinds of activity might be weighted more than others (cf. Krashen 1982: 62). For instance, two hours of intensive verbal interaction might be counted as being worth much more than two hours spent watching a video or TV programme. It seems doubtful, however, that respondents themselves can be trusted to make reliable judgements on the value of different kinds of exposure they may have to the target language (see in this connection Oller and Perkins 1978; Giota 1995: 322). As for the researcher assigning different numerical values to different kinds of contact in the scoring of the questionnaire items (cf. Spada 1986), this would seem to be a highly questionable methodological procedure. Judgements regarding the relative value of different kinds of exposure should be made on the basis of research findings and not made aprioristically and built into the research instruments, thereby possibly prejudicing the outcomes.

For the first part of the questionnaire, a set of questions, each with three alternative responses, was formulated to measure the frequency/duration of each of the following modes of contact:

- Extra-curricular listening activities (watching English videos, films and TV shows, listening to English programmes on the radio, etc)
- Out-of-class speaking activities with various categories of competent English speakers (parents, teachers, fellow-students and others, both on and off campus)
- Reading activities involving different kinds of reading materials in English (eg newspapers and magazines, stories, non-fictional material other than course-related material)
- Social interaction with the target language community within Bahrain (at home, in clubs, recreation centres and other enclosures)
- Visits abroad to an English-speaking country.

Each set of questions was equally weighted and the response to each question within each set was scored 2–1–0. The maximum score on this part of the questionnaire was 30, whilst on the second part it was 10, the latter representing 20 or more contact hours of English-medium instruction per week.

Proficiency measures

The measures of extra-curricular contact were correlated with the scores obtained from a programme-neutral proficiency test incorporating a multiple-choice reading comprehension test, a multiple-choice grammar and usage test, a multiple-choice listening comprehension test, a free composition test double-

Table 1. *Proficiency scores (out of 100)*

Respondents	Mean score	Standard deviation
All subjects	65.80	11.06
Low achievers	56.00	6.19
High achievers	74.00	6.90

marked by two independent examiners, and a cloze test in the standard format for reading, with the passage gapped at fifths and the answers marked in accordance with the acceptable word criterion. The cloze test was included merely as a reliability check and the scores on the test were not included in the overall proficiency score since this might have given too much weight to reading. Correlation coefficients of .67 (reading), .60 (listening), .65 (grammar), and .63 (composition), all significant at the $p<.01$ level, were obtained between the results of the cloze test and the results of the proficiency test. The four components of the proficiency test were all equally weighted.

It needs to be made clear that the proficiency test was not designed as a test of functional or communicative competence. In particular, it did not incorporate any test of oral fluency. Although it did not contain any material relating directly to the students' academic programme, it may nonetheless be said to have tested the 'cognitive/academic' or 'linguistic' component of language proficiency rather than the 'communicative' or 'pragmatic' component (see in this connection Cummins 1979 and 1980; Carroll 1983). Since the ultimate purpose was to determine the influence of informal exposure to English on the students' ability to use the language for academic purposes, this bias was considered entirely appropriate.

The mean score in the proficiency test was used as the basis for dividing the students into two groups: high achievers and low achievers, those scoring above the mean being considered high achievers and those scoring below the mean being considered low achievers. Of the 155 students tested, 81 came out as high achievers and 74 as low achievers. The mean score and standard deviations for the group as a whole and for the low and high achievers are shown in Table 1.

The table shows an 18-point difference between the mean score of the high achievers and the mean score of the low achievers. A much narrower spread, of course, would have called into question the validity of the distinction between relatively high and relatively low achievers in respect of this sample.

Questionnaire scores

An analysis of the results obtained from the first part of the questionnaire is shown in Table 2.

The rather low mean scores recorded here can be explained to a large extent by the fact that only 22 percent of the respondents reported having spent any time at all in an English-speaking country and of these only a handful claimed to have spent more than one month in the country or countries concerned. Generally low scores were recorded, furthermore, on the questions relating to social interaction and reading. The results nonetheless indicate that the relatively high achievers have more contact with the language outside the classroom than the relatively low achievers. There is thus *prima facie* evidence to support the conventional wisdom that the more exposure students have to the language, the higher will be their level of proficiency.

Table 3 shows the results obtained from the second part of the questionnaire.

The results show that the high achievers have somewhat more curricular contact with the language than the low achievers and are therefore consistent with the results obtained from the first part of the questionnaire.

Hypotheses

The following six null hypotheses were formulated:

H. 1 There is no significant connection between the amount of extra-curricular contact with the target language and the level of proficiency attained.

H. 2 There is no significant connection between the amount of extra-curricular contact with the target language and the proficiency level attained by relatively low achievers.

H. 3 There no significant connection between the amount of extra-curricular contact with language and the proficiency level attained by relatively high achievers.

H. 4 There is no significant connection between the amount of curricular contact with the language and the level of proficiency attained.

H. 5 There is no significant connection between the amount of curricular contact with the language and the proficiency level attained by relatively low achievers.

Table 2. *Extra-curricular contact scores (out of 30)*

Respondents	Mean score	Standard deviation
All subjects	13.40	5.07
Low achievers	11.75	4.80
High achievers	14.90	4.80

H. 6 There is no significant connection between the amount of curricular contact with the language and the proficiency level attained by relatively high achievers.

Correlations

To test H1, H2 and H3, the students' proficiency scores were correlated with their extra-curricular contact scores using the Pearson Product Moment Correlation Coefficient. The correlations are shown in Table 4.

To test H4, H5 and H6 the proficiency scores were correlated with the curricular contact scores (Table 5, see p. 186).

As a further check on the validity of the above findings, step-by-step correlations were obtained for progressively lower bands of proficiency scores, starting from 85–100 and reducing by 5 percentage points to 80–100, 75–100, 70–100 and so on. An insignificant correlation between proficiency and extra-curricular contact was obtained for all bands except the highest (which contained only 7 students and shows a high but insignificant positive correlation) down to 65–100, beyond which a significant positive correlation began to emerge consistently down to 40 (the lowest score achieved). The mean score of 65.8, which was used to split the high achievers and the low achievers, thus coincides almost exactly with the point at which the correlations cease to be insignificant. The same procedure was applied to the findings for curricular contact. Working downwards from 85–100, a significant positive correlation was obtained for all bands down to 40 with, again, the exception of the highest band, which showed an insignificant correlation.

The process was then reversed, starting from the lowest score of 40 and moving progressively upwards by 5 percentage points. It was found that in all bands up to 55 per cent, there was no significant correlation in respect of either curricular or extra-curricular contact but that thereafter a consistent significant positive correlation was obtained. It turns out, then, that within the category of low achievers, there is a subcategory of 'underachievers' or 'failures', amounting to 20 percent of the total sample, who are not consistently influenced by the amount of exposure they have to the language. The lack of correlation in respect of the failure group is consistent with Krashen's view that beginners (in

Table 3. *Curricular contact scores (out of 10)*

Respondents	Mean score	Standard deviation
All subjects	5.03	2.49
Low achievers	4.26	2.50
High achievers	5.74	2.14

this case 'false' beginners) derive less benefit from informal contact than from formal instruction (cf. Krashen 1982: 58 and 1985: 28–29;). However, it needs to be borne in mind that the insignificant results obtained for the failure group may be due to the relatively small sample (32 students) or to the relatively narrow range of scores (40–55 percent). Further research is obviously needed to confirm or infirm these findings.

Interpretation of the statistical findings

Dealing first with extra-curricular contact, H1 and H2 were rejected since a very good correlation was found between the questionnaire scores and the proficiency scores in respect of both the sample as a whole and the low achievers. However, no significant statistical result was obtained for the high achievers and H3 was therefore accepted.

The difference between the high achievers and the low achievers in respect of the tested variable is statistically very significant. Although the high achievers as a group have more extra-curricular contact with the language than the low achievers, their greater exposure to the language apparently does not account for their higher attainment. The conclusion that might be drawn is that extra-curricular exposure to the target language exerts a significant influence on the level of attainment only up to about the intermediate level and that thereafter its importance diminishes, particularly when English is being studied primarily for academic purposes.

In attempting to interpret the findings for the high achievers, however, it needs to be borne in mind that the difference in mean score between the low and the high achievers in respect of extra-curricular contact was 3.15 points on the scale 1–30. It may well be the case that beyond a certain level progressively higher amounts of exposure (whether or not within a target language community) are needed to achieve progressively smaller amounts of improvement in proficiency. If this is so, then the present findings with regard to the high achievers should not be taken to imply that beyond a certain level of attainment increasing exposure to the target language has no effect upon proficiency but rather that an increase of 10 percent or so is unlikely to have any significant impact.

Table 4. *Correlations between extra-curricular contact and proficiency*

Respondents	Coefficient	Significance
All subjects	.40	$p < .001$
Low achievers	.45	$p < .001$
High achievers	.13	Not significant

With regard to the correlations between curricular contact and attainment, a significant positive correlation was obtained for the sample as a whole and for both high and low achievers and H4, H5 and H6 were consequently all rejected. However, it is worth noting that a much lower positive correlation was recorded in respect of the high achievers than the low achievers and it may therefore be concluded that curricular exposure also yields progressively diminishing returns beyond the intermediate level, though not to the same extent as extra-curricular contact.

It was noted earlier, however, that Science students tend to perform better on proficiency tests at the University of Bahrain than Arts students and suggested that the higher level of attainment of Science students may be due not to their higher level of curricular contact with the target language but to their higher academic ability. As far as the present study is concerned, Science students made up 33 percent of the total sample but 40 percent of the high achievers. Of the students who scored above the mean on the curricular contact part of the questionnaire, 63 percent were Science students. On the other hand, Science students constituted only 36 percent of those who scored above the mean on the part dealing with extra-curricular contact. The fact that such a high proportion of the high curricular contact group were Science students and presumably, therefore, relatively high-ability students may help to explain the positive correlation obtained between curricular contact and attainment in respect of the high-achiever group. Since there are no data relating to the general ability level of the individual high achievers within the sample, however, any conclusions that might be drawn in this connection are bound to be conjectural. The correlation obtained between curricular exposure and attainment in respect of the high-achiever group, furthermore, although significant, was only marginally so ($r = .21$; $p < .05$). This is a less positive result than had been anticipated and may be due at least in part to the fact that some of the Science instructors are not very competent speakers of English. Again, however, this is mere conjecture.

Further statistical analysis

It is obviously of considerable pedagogic relevance to know whether any of the principal components of the extra-curricular variable has a stronger influence

Table 5. *Correlations between curricular contact and proficiency*

Respondents	Coefficient	Significance
All subjects	.42	$p < .001$
Low achievers	.43	$p < .001$
High achievers	.21	$p < .05$

Table 6. *Intercorrelation analysis for the sample as a whole*

Measures	1	2	3	4	5	6
1. Attainment	1.00	.40	.36	.24	.20	.06
2. Listening		1.00	.45	.50	.38	.14
3. Speaking			1.00	.52	.53	.11
4. Reading				1.00	.46	.02
5. Social interaction					1.00	−.06
6. Visits abroad						1.00

In this table correlations of ±.16 or higher are significant at $p<.05$; correlations of ±.20 or higher are significant at $p<.01$; and correlations of ±.30 or higher are significant at $p<.001$.

upon attainment than others. Consequently, the scores obtained in respect of each of the components were separately correlated with attainment and inter-correlated with each other. The inter-correlations were worked out for the sample as a whole, the low achievers, the high achievers and the failures. Table 6 shows the inter-correlations for the sample as a whole.

Certain correlation patterns are clearly discernible here. Listening and speaking are shown to correlate much more highly with attainment than any of the other components. They also correlate quite highly with each other. Of the remaining components, reading and social interaction show a low positive correlation with attainment but visits abroad show an insignificant correlation both with attainment and with each of the other factors. However, out of the total sample of 155 respondents only 34 reported ever having visited an English-speaking country and of these only a handful claimed to have spent more than one month in such a country. Taken at their face value, the results contradict the findings of a number of studies that have investigated the influence on proficiency of length of residence in the target language community (cf. Carroll op cit; Fathman op cit; Oller, Perkins and Murakami op cit). The consistently insignificant correlations obtained for this component may well be due to the limited response, but for what they are worth the findings suggest that short visits to a country where the foreign language is spoken have little or no effect on proficiency.

What is particularly striking here is the consistency of the correlations of all the components with attainment except visits abroad. The implication is that at relatively low levels of achievement all forms of informal contact with the language can be equally beneficial. Again, however, brief visits abroad are shown to have little or no significant impact on proficiency.

It will be observed that none of the components correlates significantly with attainment and the analysis thus provides further confirmation of my earlier findings with regard to the high achievers.

Table 7. *Intercorrelation analysis for the low achievers*

Measures	1	2	3	4	5	6
1 Attainment	1.00	.3	.37	.35	.30	.04
2. Listening		1.00	.38	.47	.35	.20
3. Speaking			1.00	.47	.55	.15
4. Reading				1.00	.40	.02
5. Social interaction					1.00	−.02
6. Visits abroad						1.00

In this table correlations of ±.21 or higher are significant at p<.05; correlations of ±.28 or higher are significant at p<.01; and correlations of ±.35 or higher are significant at p<.001.

Table 8. *Intercorrelation analysis for high achievers*

Measures	1	2	3	4	5	6
1. Attainment	1.00	.03	.13	.06	.13	.09
2. Listening		1.00	.33	.35	.40	.02
3. Speaking			1.00	.35	.54	.04
4. Reading				1.00	.24	.00
5. Social interaction				1.00	.03	
6. Visits abroad						1.00

In this table correlations of ±.23 or higher are significant at p<.05; correlations of ±.30 or higher are significant at p<.01; and correlations of ±.37 or higher are significant at p<.001.

Table 9. *Intercorrelation analysis for failures*

Measures	1	2	3	4	5	6
1. Attainment	1.00	.02	−.01	.15	.10	−.01
2. Listening		1.00	.28	.50	.26	−.00
3. Speaking			1.00	.44	.54	−.01
4. Reading				1.00	.47	−.15
5. Social interaction					1.00	−.21
6. Visits abroad						1.00

In this table correlations of ±.35 or higher are significant at p<.05; correlations of ±.44 or higher are significant at p<.01; and correlations of ±.55 or higher are significant at p<.001.

Here again, the analysis confirms our earlier findings and shows that at very low levels of attainment learners derive no significant benefit from any form of extra-curricular contact with the language.

Pedagogic implications

The results obtained in respect of curricular contact, although of some theoretical interest, have little pedagogic relevance since the amount of English-medium instruction received is not normally a matter over which either the students or the English language instructors have any control. The fact that positive correlations were obtained throughout most of the sample might encourage educational planners and decision-makers in English-medium contexts to entertain the possibility that more hours spent on English-medium instruction in 'content' subjects and correspondingly fewer hours spent on formal English-language instruction might be more beneficial in the long run, both with regard to concept development in the subject area and the development of academic proficiency in English (for further discussion on this point see Stern et al., op cit; Wigzell op cit; Wesche op cit).

The findings with regard to extra-curricular contact have different implications for different categories of learners. As far as the moderate achievers are concerned, the implications are clear: in order to improve their proficiency level, they need to be more engaged in various extra-curricular activities in the target language, especially listening and speaking activities. Since most students who involve themselves in outside activities in the language do so in their own time and without much immediate reward, it may be assumed that as far as averagely-gifted learners are concerned inner motivation or desire to learn plays a dominant role in language acquisition, especially in the earlier stages (for a similar view, see Gardner 1983). Motivation, of course, is notoriously difficult to control, and it may therefore prove necessary to incorporate compulsory extra-curricular activities systematically into the instructional programme. How this can be done without loss of effectiveness, however, is a question that practitioners have hardly begun to address (but see Tumanov 1983 and Oxford and Shearin 1994: 24). Practising language teachers rarely expend anything like the same amount of time or effort in arranging and promoting extra-curricular activities as they spend in formal lesson preparation. To the extent that it takes place at all, extra-curricular contact with the target language is usually to a large extent unguided, unassisted and unmonitored. Methodological debate in the field of foreign and second language teaching needs to focus much more on ways of promoting and managing extra-curricular activities and correspondingly less on instructional techniques and classroom management (for further ideas on group dynamics for the purpose of increasing extra-curricular activities, see Dornyei 1997 and Dornyei and Malderez 1997).

The results obtained for high achievers and underachievers, however, suggest that contact with the language outside the classroom is not a panacea that will guarantee further linguistic development at all levels of attainment. With regard to the underachievers or false beginners, the findings are consistent with

two possible inferences: either their level of proficiency is too low for them to derive any benefit from the kind of extra-curricular exposure they get to the language, which would suggest that much of the input they receive is largely incomprehensible, or they do not have the necessary cognitive and verbal characteristics to derive the kind of benefit from their exposure that would be reflected in higher scores in an academically biased proficiency test. What the evidence does not tell us, of course, is whether they would derive any benefit from more guided and more sheltered extra-curricular exposure. Experimental work in a variety of different contact situations might eventually provide some partial answers to this question.

Regarding the high achievers, it would obviously be unwise to make any methodological prescriptions in the absence of any clear indication of what the factors influencing learning at higher levels are. It is premature to conclude that at higher levels a more explicit, analytic approach should be adopted, drawing upon the considerable insights into the nature of language that have been gained during the past few decades. I draw attention at the outset to the importance of 'general academic ability', but this designation is just a convenient umbrella term covering a variety of different cognitive and verbal characteristics (cf. Stern 1983: 360 ff). There is no evidence, furthermore, that convincingly links any such characteristics to a specific methodology. Clearly, more empirical research is needed before the pedagogic implications of the present study for high achievers at the university level can be properly evaluated.

Theoretical implications

In recent years, theoretical speculation on second language acquisition has tended to stress the importance of comprehensible input and acculturation. The Bahraini experience generally and the results of the present study in particular lend only partial and qualified support to the Comprehensible Input Hypothesis. As for the Acculturation Hypothesis, this simply does not apply in the Bahraini context.

Much of what has emerged from the present study lends support to Krashen's views. Central to his main thesis is the claim that certain linguistic environments and certain kinds of linguistic activity are a richer source of intake than others. This claim is borne out by the present findings, which show that sheltered curricular exposure correlates more consistently with attained levels of proficiency than unsheltered extra-curricular exposure. The fact that very low achievers do not seem to derive much benefit from any form of contact, furthermore, is perfectly consistent with the Comprehensible Input Hypothesis: if the kind of language learners are exposed to is well beyond their level of comprehension, there will be no intake and therefore no linguistic development. On the other hand, however, the fact that the proficiency scores of high

achievers were found not to correlate significantly with the amount of out-of-class contact they have with the language suggests that something other than comprehensible input and a low 'affective filter' (Dulay and Burt 1977) are necessary for acquisition beyond a certain level of proficiency. Independent evidence was adduced which strongly suggests that beyond the intermediate stage the level of academic proficiency attained is strongly influenced by a general academic ability factor that determines how much input is efficiently processed and assimilated, and not merely 'comprehended'. Within this general ability factor there may well be a critical component that is traditionally thought of as 'language aptitude' or 'verbal intelligence' but which might be better conceptualised as some kind of mechanism that functions with varying degrees of efficiency. The findings of the present study are entirely compatible with the belief that the *rate of acquisition* is determined not only by the amount of filtered, comprehended input received but also, and perhaps more critically at higher levels, by the efficiency of the acquirer's language acquisition device. In the absence of any compelling empirical evidence to the contrary, this may be assumed to be genetically determined.

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