

# Effects of Informal Contact on Classroom Learners' L2 Proficiency: A Review of Five Studies

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In this paper, the findings of studies investigating the effects of informal contact on adult classroom learners' second language abilities are discussed and a number of factors are proposed which might have contributed to their conflicting results. This will involve a close examination of five of these

studies in terms of differences in:

1) type of contact 2) type of measurement instruments 3) type of learner 4) differences in quantitative measures of contact 5) intensity and duration of instruction 6) interactions between type of instruction and contact.

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Two kinds of linguistic environments which have been described by researchers examining the role of environment in second language (L2) learning are the formal and informal learning environments (d'Anglejan, 1978; Krashen, 1976; Krashen and Seliger, 1975). While the informal environment is described as being similar to the "natural setting" in which children acquire first languages, where learning takes place in real life situations and meaning is derived partly from context, the formal environment is described as one in which learners receive explicit instruction and feedback which focusses on the formal correctness of particular linguistic items (Krashen and Seliger, 1975).

The extent to which the formal and informal learning environments contribute to L2 learning is an issue which has received considerable attention in the second language acquisition literature. While some researchers have found that learners benefit from opportunities to use the L2 outside the classroom, others have found that learners with greater out-of-classroom contact with the target language are not any more proficient than learners without such contact. Still others have found that both formal instruction and informal contact contribute to second language learning but do so in different ways.

In a recent review of the research investigating the extent to which formal instruction and informal contact contribute to L2 proficiency, Long (1983) undertook a close examination of twelve studies and concluded that the effect of formal instruction on learners' proficiency was stronger than that of informal contact in six of the studies reviewed and that an advantage for instruction over contact could be argued for at least two if not more of those studies claiming no effect for instruction over

contact. Although Long is careful to point out that the data from these studies are by no means clear, the overall findings of the available studies seem to indicate that it is instruction and not contact which makes a greater contribution to learners' L2 proficiency. While these results are encouraging for those of us involved in the language teaching profession, they also seem somewhat perplexing, given the common notion that informal contact is an important factor in second language learning.

The purpose of this paper is to focus on a small number of studies investigating the effects of informal contact on classroom learners' L2 abilities with the intention of identifying a number of factors which might have contributed to the findings that informal contact did not lead to increased proficiency in much of this research. These factors are related to differences inherent in the design of such studies, inadequate information regarding the variables under question and to potential intervening variables which might have influenced the results. It is important to emphasize that the intention of this paper is not to debate the issue of whether informal contact leads to increased proficiency or not, but rather, to argue that a number of methodological issues need to be considered before an answer to this question can be provided.

Five studies have been selected for this purpose—three which are included in Long's review and two which were undertaken subsequently. This particular group of studies was selected because the subjects were all adult ESL learners who were receiving (or had received) comparable amounts of L2 instruction and were enrolled in intensive programs in environments in which the target language was used.

The paper is organized as follows. First, a description of the five studies and their results is provided. Second, the findings are discussed in terms of six factors which might have influenced their results and finally, conclusions and suggestions for future research are presented.

## THE STUDIES

Two studies which are similar in design and provide evidence for the argument that informal contact does not lead to increased proficiency of classroom learners' L2 abilities are the Krashen, Seliger and Hartnett (1974) and the Krashen and Seliger (1976) studies. (See Table 1) In these investigations, the researchers measured the number of years that adult ESL learners had spent in an English-speaking country and the amount of English they spoke every day. These measures were correlated with scores on the Michigan test in the first study and with students' final grades in class in the second study. The results from the first study revealed that when students were matched for the same amount of instruction, in only

Table 1

Five Studies Investigating the Effects of Informal Contact on Adult ESL Learners' Proficiency

STUDY	CONTACT	TESTS	TYPE OF INSTRUCTION	LANGUAGE BACKGROUND	INTENSITY OF INSTRUCTION	FINDINGS
1) Krashen, Seliger & Hartnett (1974) N = 36	Quant.	Michigan	no info.	no info.	5 hrs/5 days 6 weeks	no effect for contact (correlational analyses—t-tests)
2) Krashen & Seliger (1976) N = 36	Quant.	Teacher ratings spoken English	no info.	no info.	5 hrs/5 dys 6 weeks	no effect for contact (correlational analyses—t-tests)
3) Day (1983) N = 58	Quant.	Cloze & Oral interview	no info.	88% Japanese	4 hrs/5 dys 8 weeks	no effect for contact (correlational analyses—t-tests)
4) Martin (1980) N= 166	Qual.	Michigan, Reading, Writing, Grammar, Spoken English	no info.	no info.	5 hrs/5 dys 14 weeks	positive effect for contact on all measures (pre-post difference in ANOVA)
5) Spada (1984) N= 48	Quant. & Qual.	Grammar, Discourse, Sociolinguistic, Reading, Writing, Listening, Speaking (Oral Interview & Interaction)	1 class more form-based than other 2	mixed 36% Spanish	5 hrs/5 dys 6 weeks	1. qual. not quant. diff. on oral tests (correlations) 2. neither quant. nor qual. diff. in improvement on any measures (ANCOVA) 3. interactions between combined contact scores and instructional diff. led to variation on two measures—grammar and writing (ANCOVA)

six of the fourteen pairs did the student with more contact show a higher ranking than his/her partner with less contact. Similarly, in the second study, more informal contact was related to higher scores on classroom tests in only ten of the twenty-one cases. These correlations were not significant.

In a recent study by Day (1983) similar findings were reported. In this investigation, fifty-eight adult learners in an intensive ESL program at the University of Hawaii filled out a questionnaire designed to elicit information regarding the amount of time subjects spent with English speakers, watching television, reading and so on. Differences in subjects' contact scores were then examined in relationship to their performance on an oral interview (Bachman-Palmer Oral Interview, 1982) and a cloze test. The results revealed that learners with more contact did not perform any differently on these measures than their peers who reported having less contact.

In all three studies just described, measures of learners' proficiency were obtained at one point in time (usually in the last week of instruction) and were compared with differences in learners' contact. In the next two studies, measures of learners' proficiency were obtained twice (before and after instruction) in an effort to determine how much improvement occurred in the intervening period which might have been related to variation in learners' contact.

In Martin's study (1980), two groups of ESL students enrolled in a fourteen week intensive language program were compared. One group, the high contact group, consisted of learners who were living with English-speaking families (i.e., homestay group) and the other group, the low contact group, consisted of learners who were living in university dormitories (i.e., non-homestay group). All subjects took the Michigan Test or a placement test before beginning instruction and each of the homestay students was paired with a non-homestay student who had an identical Michigan or placement test score. These scores were compared with their classroom grades in grammar, reading, composition and spoken English to determine whether differences in learners' improvement could be attributed to variation in contact. The results revealed that learners with more informal contact scored significantly higher on all measures than learners with less contact.

In a recent study by Spada (1984), three classes of adult intermediate-level learners' pre-test scores on seven proficiency measures (i.e., reading, writing, speaking, listening, discourse, grammar and sociolinguistic tests) were compared with learners' post-test scores on the same measures after six weeks of instruction. The results indicated that learners with more contact did not improve any more on these measures than learners with less contact. Interestingly, however, when learners' pre- and post-test

scores were examined in relationship to instructional variation within the three classes under investigation, learners with greater contact were found to improve significantly more on two of the measures (i.e., grammar and writing tests) than learners with less contact. Another finding from this study which has implications for the others under investigation is that when learners' pre- and post-test scores were examined in separate correlational analyses in relationship to contact, learners with greater qualitative contact scores had significantly higher scores on an oral communication task than learners with lower contact scores.

To summarize the results of these studies, one provided evidence that informal contact led to increased levels of proficiency and three revealed the reverse. Another indicated that while informal contact did not lead to increased proficiency when the entire subject population was considered, informal contact was found to account for differences in improvement on some measures when it was examined in relationship to differences in classroom instruction.

In order to discuss the different findings of these studies, the following six factors will be considered: 1) type of contact versus amount of contact; 2) type of proficiency instruments; 3) type of learner; 4) differences in quantitative contact measures; 5) intensity and duration of instruction; 6) possible interactions between contact and variation in instruction.

### **Type of Contact**

One explanation for the fact that contact was not found to lead to increased proficiency in most of these studies may be related to the fact that for the most part, measures of learners' contact in these studies were quantitative as opposed to qualitative in nature. This is an important distinction because even though quantitative measurements of learners' informal contact can provide investigators with some indication of the amount of time subjects spend using English outside the classroom setting, they do not provide adequate information regarding the context in which such contact takes place, the kind of interlocutors subjects interact with and the relationship between subjects and their interlocutors. Without this qualitative information, it is difficult to know just how much of the subjects' contact time is spent in what Krashen (1981) has referred to as "real and sustained language use situations" (p. 44). For example, in two other studies not examined here (Upshur, 1968; Mason, 1971), both investigators found that contact was a stronger predictor of learners' L2 proficiency than was ESL instruction.<sup>2</sup> As Krashen points out with reference to these studies, the subjects with more contact and less instruction appeared to be involved in an intensive, daily and often demanding second language environment, taking regularly scheduled university

courses with native speakers.

Qualitative differences were also found to be important factors affecting second language learning in the study of the informal acquisition of German syntax by Italian and Spanish migrant workers (Klein and Dittmar, 1979). In this study the investigators found that contact with Germans during leisure time appeared to be more directly related to L2 performance than, for example, contact with Germans at work or the length of time the subjects had spent in the L2 environment.

If we consider the three studies under investigation in this paper where no effect for informal contact was found, we are reminded that measures of learners' contact were primarily quantitative in nature. That is, subjects reported the amount of time spent, for example, in an English-speaking country or engaging in conversations in English. However, in the one study which revealed a significant effect for contact in terms of learners' improvement in proficiency (Martin, 1980), measures of learners' contact were qualitative in nature. That is, the high contact learners in Martin's study were those who were living with English-speaking families. Therefore, the high contact learners in Martin's study were presumably exposed to a great deal more sustained language use in their daily lives than the high contact learners in the other studies under investigation.

Qualitative differences seemed to contribute to variation in learners' proficiency (but not improvement in proficiency) in the Spada study as well. In this investigation an attempt was made to discriminate between those items on a self-report questionnaire which measured primarily quantitative contact and those which measured primarily qualitative contact. This distinction seemed to make a difference because correlational analyses revealed that learners who had higher scores on the speaking test (i.e., an oral interview and interaction task) were those with greater qualitative but not quantitative contact. It is important to emphasize, however, that this relationship was only found between contact and proficiency and not between contact and improvement in proficiency over the six week period of the investigation. Nonetheless, these findings and those from Martin's study suggest that quality of learners' contact may be a more important variable than quantity. If this is the case, until more studies are carried out with comparable groups of learner to investigate qualitative aspects of contact in relationship to proficiency, the contributions of such contact are not clear.

### **Type of Measurement Instruments**

Another factor which may contribute to the fact that contact did not predict higher levels of L2 proficiency in most of these studies may be related to the type of proficiency instruments used. For the most part,

tests tend to be grammar and literacy-based. Because of this they may not be sensitive to the kinds of linguistic knowledge that learners may acquire as a result of informal contact with the L2. For example, learners with greater contact may be more proficient in their ability to recognize (and possibly produce) a greater variety of registers in the L2, to initiate conversations more easily and to appropriately conclude them. They may also be more competent in accomplishing everyday communication tasks such as scanning newspapers for specific information, making appointments on the telephone, comprehending news broadcasts and so on. In addition, they may also possess a greater variety of strategies for getting their message across, negotiating meaning, avoiding linguistic traps and maintaining a generally higher level of fluency in the L2.

Admittedly, tests to measure linguistic abilities such as these are not easily developed or administered, yet these kinds of abilities are more likely to be acquired in the informal setting than the ability to produce the correct form on a grammar test, answer a series of comprehension questions on a reading passage or write a coherent paragraph.

Furthermore, if one considers that most contact questionnaires focus primarily on measuring learners' oral communication opportunities outside the classroom and that most of the tests used in these studies are heavily weighted in terms of learners' academic abilities, it should come as no surprise that informal contact does not account for differences in many of these studies.

However, the situation is clearly more complicated than this because even in those studies where an effort was made to measure subjects' oral abilities using a wide range of communicative criteria for assessment purposes, no effect for contact was found. For example, in Day's study, correlational analyses of learners' contact scores and performance on the Bachman Palmer Oral Interview revealed no differences between high and low contact learners. A possible explanation for this finding may be related to the type of learner investigated in this study which is the next factor under consideration.

### **Type of Learner**

The extent to which individual differences regarding type of learner might contribute to the findings of these studies is a factor which has not been given much consideration. Yet, variation with respect to certain personality characteristics and differences in learners' cultural and linguistic background may influence the degree to which they seek out opportunities to use the L2 environment. If we consider, for example, that studies of ethnic participation patterns in classroom settings have indicated that Asian students take fewer speaking turns on their initiative and tend to be more dependent on teacher-allocated turns in classroom discussions than

non-Asian students (Sato, 1981), it seems possible that participation patterns related to native language differences such as these could exist outside the classroom setting as well. What this suggests is that the "high contact" learners in Day's study for example, had less contact than the "high contact" learners in the Spada study where the subjects came from a variety of language backgrounds with the highest proportion being native speakers of Spanish (36%). Information regarding the native language background of subjects in the other studies is not provided. Nonetheless, the possibility that native language background might influence the degree to which learners seek out opportunities to use the L2 outside the classroom raises another important issue with respect to the measurement of contact profiles in these studies.

In addition to differences in linguistic background, there is evidence to suggest that certain personality traits, particularly those associated with social and psychological distance also affect the degree to which learners seek out opportunities to use the L2 in the informal environment (Schumann, 1978). Individual learner differences such as these cannot be ignored when investigating the relationship between learning environments and second language performance.

### **Differences in Quantitative Measures of Contact**

As already indicated, in most of the five studies, contact was measured primarily in quantitative terms. However, the manner in which amount of contact was measured differs from one study to another. For example, in the Krashen et al. studies subjects were asked to simply report the number of years spent in the United States and the number of hours that they spent engaging in conversations each week. In the Day and Spada studies, subjects were asked to fill out different questionnaires consisting of a number of items designed to measure various quantitative aspects of contact. Due to these differences in the measurement instruments used to obtain contact profiles, it is impossible to know how similar (or different) the high and low contact learners in one study are from the high and low contact learners in another. Furthermore, as already indicated, even if learners reported the same amount of contact, it may be qualitatively different due to variation in learner characteristics. Therefore, in addition to obtaining more qualitative information about learners' contact it is also essential to use comparable quantitative measures of learners' contact if cross-study comparisons are to be meaningful.

### **Intensity and Duration of Instruction**

Another factor which might have contributed to the finding that contact did not account for increased proficiency in many of these studies



could be related to the intensity and duration of the programs in which these subjects were enrolled. That is, in all of these studies, learners were receiving instruction for at least 4 hours a day, 5 days a week over a relatively short period of time. Furthermore, in all of these studies learners were tested directly after having received this intensive instruction. Given such intensity of instruction, it seems possible that learners may have reached a kind of "contact saturation point" beyond which anything less than living with a native speaker would not have made a difference. This might explain why the high contact learners improved more than the low contact learners in Martin's study, but did not in the others. These results may also be related to the fact that Martin's study took place over a longer period of time than the other studies (i.e. 14 weeks). Six to eight weeks may be too short a period of time to reveal differences in the effects of informal contact on L2 proficiency, particularly when subjects are receiving daily intensive instruction. This is difficult to know however, because as Martin points out, the high contact learners in his study may also have been more highly motivated to learn English at the outset: it was their own choice to live with an English-speaking family.<sup>3</sup>

Nonetheless, given the possibility that the intensity and duration of instruction could mask the potential effects of informal contact on L2 proficiency, it might be more useful to conduct studies with learners who are receiving less intensive instruction, and over longer periods of time. Alternatively, more studies of learners receiving equal amounts (and type) of instruction and contact are needed to further investigate this issue.

### **Interactions between Type of Instruction and Contact**

The final factor which requires some consideration in relationship to the findings of these studies is the extent to which differences in the kinds of instruction learners received might have interacted with variation in contact to produce differences in learners' proficiency. This is difficult to discuss however, since only one of the studies under investigation in this paper provided information regarding the type of instruction learners received (Spada, 1984). In this study, an analysis of the instructional practices and procedures indicated that one of the classes spent considerably more time focusing on explicit grammatical instruction than the other two. Learners in this class who had more informal contact improved more than learners with less contact on two of the proficiency measures used in this study (i.e. the grammar and writing test). These results were not revealed when the entire subject population was compared on the same measures disregarding class differences. This is an interesting finding because in some of the other studies reviewed here, subjects were taken

from three or four classes in the same program (i.e. Day's study and Martin's study), yet no information was obtained regarding potential classroom differences, nor was there any attempt to examine relationships between contact and instructional variation in individual classrooms. As a result, it is difficult to know whether it was contact itself or the interaction between contact and instruction which produced the results.

## CONCLUSION

In conclusion, there appear to be a number of factors which might have contributed to the finding that informal contact did not lead to increased proficiency in four of the five studies reviewed in this paper. These include the use of proficiency instruments which may not have been sensitive enough to the kinds of linguistic knowledge which can be obtained outside the classroom setting, the lack of information regarding qualitative aspects of learners' contact, the high intensity and relatively short duration of instruction, the possibility that individual differences among learners contributed to variation in amount of contact, and the absence of statistical procedures to measure possible effects of the interaction between contact and instructional variation on L2 proficiency.

Clearly, factors such as these (and others) need to be taken into consideration when designing studies to investigate the contributions of informal contact to L2 learning. However, an examination of this small group of studies has indicated that differences inherent in the design of these studies combined with potential variations with respect to a number of intervening variables make it difficult not only to interpret the findings of one study, but also to make valid cross-study comparisons. As a result, any claims made with respect to the effects of informal contact on L2 learning based on findings from studies such as these are tentative and need to be interpreted with caution.

There is a need for future studies to provide more information regarding type of learner, type of contact and type of instruction in studies investigating the contributions of informal contact on classroom learners' abilities. In addition, more effort is needed to examine not only the separate effects of these variables on L2 proficiency, but also the effects of their interaction on L2 learning. Furthermore, tests which can measure a broader range of learners' communicative abilities are needed if we are going to be able to adequately measure the kinds of linguistic skills learners acquire in the informal context. Finally, and perhaps most importantly, there is a need for more replication studies to be undertaken so that future cross-study comparisons can provide more answers than questions on this particular issue in second language acquisition research.

## FOOTNOTES

1. This paper was prepared for presentation at the Second Language Research Forum in Los Angeles in February 1985. The author wishes to acknowledge helpful comments by Sue Gass, Virginia Samuda and a *TESL Canada Journal* reviewer on an earlier version of this paper.
2. These studies are not examined in this paper because the subjects were receiving considerably less instruction (of varying amounts) and were at higher levels of proficiency than the subjects in these studies.
3. Long (1983) has suggested that the subjects in Martin's study may also have been at a lower level of proficiency than the subjects in the other studies and this may have contributed to his results.

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