

Does second Language instruction make a difference?  
A review of research\*

Michael H. Long  
University of Hawaii at Manoa

Abstract

Does second language instruction promote second language acquisition? Some studies conclude that instruction does not help (or even that it is counter-productive); others find it beneficial. The picture becomes clearer if two distinctions are made. First, researchers may address one or both of two issues: the absolute effect of **instruction**, on the one hand, and on the other, its **relative** utility. Second, studies need to be **sub-classified** according to whether or not the comparisons they make involve controlling for the total amount of **instruction**, exposure, or instruction plus exposure, *i.e.* for the total opportunity to acquire the second language.

Observing these distinctions, a review of research findings concludes that there is considerable (although not overwhelming) evidence that instruction is **beneficial** (1) for children as well as **adults**, (2) for beginning, intermediate and advanced students, (3) on integrative as well as discrete-point tests, and (4) in acquisition-rich as well as acquisition-poor environments. These findings have implications for theories of second language acquisition, such as **Krashen's** Monitor Theory, which make predictions about second language acquisition with and without instruction, and also for those involved in educational **administration**, program **design** and classroom teaching.

\*

Paper presented at the TESOL Research Committee's state-of-the-art session, TESOL Convention, Honolulu, May, 1982. I thank Cathy Doughty and Judith Matsunobu for help with the literature search for this paper. I also received useful comments while writing it from Ann Fathman, Steve Krashen, Teri Pica, Charlie Sato and Herb Seliger, not all of whom, needless to say, agree with everything I have said here.

Mr Long teaches in the ESL Department at the University of Hawaii at Manoa. He is co-editor, with H. W. Seliger, of Classroom-Oriented Research in Second Language Acquisition, Newbury House, in press.

## 1. Introduction

Of many important questions facing the language teaching professional, the most basic must be: Does **instruction** make a difference? Judging by the plethora of prescriptive papers at conferences and in journals, one might presume that the answer was already known and affirmative. In fact, few researchers have ever addressed the question, and of four studies which have sought direct answers to it (by comparing second language acquirers with and without instruction), not one claims to have found evidence that instruction helps.

The question may be approached through a variety of comparisons (Table 1). Some refer to the absolute effect of instruction, others to its relative utility, with the alternatives being either simple exposure to the second language (SL) in use or a combination of instruction plus exposure. An answer involves showing a causal

---

Table 1 about here

---

relationship (or the lack of one) between, on the one hand, instruction (only), exposure (only), or instruction plus exposure\* and on the other\* the SL process (e.g. sequence of acquisition), or rate or ultimate attainment in second language acquisition (SLA).<sup>1</sup> A definitive answer, therefore, requires use of a true experimental design, i.e. (minimally) an experimental and a control group, plus random assignment of subjects to each.

Of the 16 possible comparisons in Table 1, those discussed here are (12) through (16). They are of importance for two reasons.

---

<sup>1</sup> This paper focuses exclusively on rate and ultimate attainment in SLA. For a comprehensive literature review and empirical study of process issues, see Pica (1982).

First, they provide supporting or disconfirmatory evidence for theories of SLA, such as Krashen's Monitor Theory<sup>2</sup>, which make predictions about SLA with and without instruction. Second, they speak to the efficiency of instruction and/or exposure in situations which can be manipulated by educational administrators, program designers, teachers and students.

2. The relative utility of exposure only and the same total amount of instruction and exposure (comparison 12)

Four studies have made comparisons of type (12). All have dealt with English as a second language (ESL) in the USA, three (Hale and Budar, 1970; Mason, 1971; Upshur, 1968) involving adolescents and/or adults, one (Fathman, 1975) focusing on younger and older children (see Table 2).<sup>3</sup> Researchers in all four studies claimed to find no advantage for instruction plus exposure over exposure (only), Hale and Budar claiming that their exposure only students in fact did better.

---

Table 2 about here

---

Examination of the studies by Upshur, Mason and Fathman confirms that their data support their common conclusion: for their subjects, exposure was as effective in promoting SLA as the same total amount of instruction plus exposure. As shown in Table 2, however, there was some indication that instruction helped in all three studies.

---

<sup>2</sup> Basic familiarity with Monitor Theory is assumed in what follows. For a recent statement, see Krashen (1981).

<sup>3</sup> The role of formal SL instruction in SLA was a focus in these and all 13 studies reviewed in this paper. Several of them, such as Fathman (1975), involved additional issues not discussed here, however.

The Hale and Budar study, on the other hand, seems open to other interpretations than those of the original researchers.

Hale and Budar compared two groups of students (grades 7 through 12), providing test scores on 329 of a total n of 537.<sup>4</sup> Of the 329, 70 were mainstreamed for one or two years. Their schools were located in middle and upper-middle class neighborhoods, and had an average ratio of 110 children who were native speakers of English to each child who was a non-native speaker. The remaining 259 were in various sorts of "pull-out" ESL programs for one or two years. Their schools were in low socioeconomic areas, and had an average ratio of 25 native English-speaking children to every non-native child. Hale and Budar report that many children in the second situation spoke in their mother tongue with other non-native children whenever they were out of the classroom (i.e. at recess, during lunch hour and at home). The lower native/non-native ratio, that is, meant that there were other children with whom they spoke in their first language, and that they were exposed to Less English than children in the exposure only schools.<sup>5</sup> The study compared children from the two

---

<sup>4</sup> Hale and Budar offer no explanation for the missing data on 208 of the subjects they tested.

<sup>5</sup> It is not clear from the Hale and Budar paper just how many children this was true of. If the majority in the instruction plus exposure group were affected in this way, the study was not strictly a type (12) comparison, the children from the working-class schools receiving less total instruction plus exposure than the middle- and upper-middle-class children's total exposure. If this was the case, the exposure only children should have been expected to have an advantage independent of the type of treatment they received.

kinds of program on the basis of an aggregate of (1) scores on an **(unvalidated)** oral interview (conducted by one of the **researchers**), (2) scores on the Davis test, and (3) general scholastic average. Comparisons were made of children who had been in the program for one year and for **two** years. No inferential statistics were employed. On the basis of the raw scores for each group, Hale and **Budar** claimed that students who were mainstreamed did better (at SLA), and recommended to schools in Honolulu that they

"(M)aximize the immigrant student's total in-school exposure to the English language and culture, and minimize English language teaching in formal TESOL classes." (p. 491)

Hale and **Budar's** claim that the exposure only children did **better** is questionable. There are enough flaws in the study, some of which, to their credit, the researchers acknowledge in their report, to invalidate any claims they might wish to make based upon it. Most problematic, perhaps, are the social class differences between the two groups of schools. The relationship between social class and educational attainment is so well documented that

children in the working class (exposure plus instruction group might have been expected to do less well than their **middle-and upper-middle** class peers, regardless of the treatment they received, especially when it is remembered that the dependent variable was not just a measure of SL proficiency, but also contained general academic achievement scores. Parental attitudes to SL education and use have also been found important in Canadian studies of immersion education, and may well have played a role here. Also of concern is the fact that the greater numbers of non-English speaking peers for the exposure **plus** instruction children means that the instructed group probably heard less English than the exposure only group, i.e. had less

overall opportunity to acquire English.

Given these circumstances, one could argue that instruction had a positive effect if the rate of SLA ~~was~~ equal in both conditions. In fact, as indicated in Table 2, chi-square tests run on Hale and Budar's data show that this was precisely the case for the one-year group. Although the two-year and overall scores for both years combined did indeed favor the exposure only group, it appears ~~that~~ instruction may well have been beneficial in the early stages. From the first year results, at least, there was no evidence that exposure only was advantageous - quite the reverse - and so no basis for Hale and Budar's recommendation, at least as far as this group was concerned.

In general, the results of the four studies in Table 2 suggest no difference between programs of exposure only and the same total amount of instruction plus exposure for children, adolescents and adults. There are, however, several hints of possible benefits for instruction, particularly for **students** of lower SL proficiency who, because of linguistic difficulties, (not just the relatively smaller numbers of SL speakers with whom they may come into contact), can often find it difficult to sustain SL conversation and, thereby, obtain comprehensible input. For such students, as Krashen (1980) has argued, the SL classroom may be the main, and so an especially valuable, source of exposure to the target language.

3. The relative utility of differing amounts of instruction and exposure in populations with the same total amount of both (comparison 13)

Two studies have made comparisons of type (13). Both have dealt with ESL in the USA, Upshur (op. cit.) focusing on adults, and Fathman (1976) studying elementary and secondary school children (see

Table 3). Upshur found no significant difference between the gain scores of two groups of intermediate and advanced students after a seven-week period in which one group received one hour of ESL instruction per day and one group two hours per day, and during which period both groups attended law classes and lived in an English-speaking environment at the University of Michigan. That is, there was no difference between two groups receiving more or less instruction in the same total amount of instruction plus exposure.

---

Table 3 about here

---

Using an oral Interview and the SLOPE test, Fathman (1976) measured the ESL proficiency of a total of 331 children in public schools in the Washington, D.C. area at the beginning and end of a year in which some received three, some five, and some ten hours of ESL instruction per week, and for which all children were mainstreamed for the rest of the school day. Fathman then computed % gain scores for the two groups by dividing the actual pretest-posttest gain students made by the total possible gain. (Actual gain = posttest score minus pretest score. Total possible gain = maximum possible test score minus pretest score.) Thus, a group of students with a mean pretest score of 10 on a 100-point oral interview, and a posttest score of 40, would have an actual gain score of 30. The total possible gain for the group would be  $100 - 10 = 90$ . The % gain score would be  $30 \text{ divided by } 90 = 33\%$ . A group with a mean pretest score of 80 and a posttest score of 90 would have an actual gain of 10, a total possible gain of  $100 - 80 = 20$ , and a % gain score of  $10 \text{ divided by } 20 = 50\%$ . In other words, a gain of 30 points by a low proficiency group would result in a considerably smaller % gain than a gain of 10 points by an advanced group. Fathman found that students with less instruction

made **greater %** gain scores than those with more instruction on both tests.

As the sample computations show, if students with lower pretest scores are compared with students with higher pretest scores who receive less instruction (**probably** because it is felt their higher starting proficiency means they need **less**), as was the case in Fathman's study, students with less instruction are likely to appear to do better. Examination of the raw scores in Fathman's study (op. cit. Table 2, p. 437) shows that the greatest absolute gains were made by the students with more ESL instruction on both tests. The problem is the usual one of how to interpret gain scores. Use of either absolute or % gain scores (calculated by dividing actual gain scores by pretest scores) would produce the opposite result on her data to that reported by Fathman. Such analyses would also be misleading, however, unless one made the (**unjustified**) assumption that an absolute gain at lower levels of proficiency is comparable to the same absolute gain at higher levels. (Upshur attempted to deal with this problem in his study, which also involved a comparison of groups with differing initial proficiency, by use of ANCOVA.)

In summary, when the relative utility of differing amounts of instruction and exposure in populations with the same total amount of both has been studied, the results are ambiguous. One study (Upshur, 1968) has found no effect for more instruction for intermediate and advanced level adults over a short (seven-week) period. One study (Fathman, 1976) has reported the same result for children of various proficiency levels over a longer period (one year). Findings of the latter study are ambiguous, **however**, and could as easily be argued to show an effect for the amount of instruction (more better than less), especially at lower levels of SL proficiency.



4. The effect of amount of instruction on populations with the same amount of exposure (comparison 14)

Two studies\* Krashen (1976) and Krashen, Seliger and Hartnett (1974), have looked at the effect of amount of instruction on populations with the same amount of exposure (see Table 4). The 5<sup>th</sup> studies involved adult acquirers of ESL in the USA with differing levels of SL proficiency and differing periods of instruction and exposure (DPIE in Table 4). A wide range of periods of exposure, particularly, was represented in the samples, some students having had several years of residence in the New York area. In both studies,

---

Table 4 about here

---

the procedure was to match pairs of students with equal periods of exposure but different periods of instruction, and then to test the hypothesis that more instruction was beneficial by seeing if the members of each pair with more instruction had greater proficiency. 'Exposure' was operationalized in these studies by calculating a "practice" score for each subject. This was done by having each student report how much English (the SL) he or she spoke (on a scale of 1 to 10) to native speakers of English\* to speakers of their own language, and to other foreigners who were non-native speakers of either. The sum of these three scores, a '@talking' score, was then multiplied by the length of time in the USA to give the "practice" score. The hypothesis was sustained on both occasions - more instruction predicted higher SL proficiency. In addition, Krashen et al looked at the proficiency of 11 pairs of students matched for exposure (here defined by length of residence in the USA) in which the member with less instruction had had more "practice". They obtained the same result in a significantly higher number of pairs (see Table 4).

There is clearly a consistent pattern in these results: in populations with the same amount of exposure, more instruction predicts higher SL proficiency. Further, Krashen et al (Table 4, Result 2) suggests that more instruction can even compensate for less exposure (as measured by the amount of "practice"). On the basis of these studies alone, however, one cannot be certain that it is more instruction per se that is having an effect. Comparisons of type (14) involve subjects with more instruction, but also more overall opportunity to acquire the SL (by virtue of the greater amount of instruction). Krashen (1976, 1981, in press) has argued that the greater proficiency in the groups with more instruction is due to the additional opportunity for acquisition (unconscious learning via the "creative construction process") in the classroom setting, a setting which is a source of comprehensible input for the SL learner.

Comparisons of type (14) alone cannot resolve this issue. If Krashen is correct, however, one would predict the same result in studies of type (15) where, among students with equal amounts of instruction, some had had more exposure. A finding that those with more exposure had higher proficiency would not prove Krashen's claim, for the same reason that studies of type (14) cannot disprove it. (Each comparison could simply be showing that subjects with greater total opportunity to acquire a SL do better.) On the other hand, a different outcome in studies of type (15), i.e. results showing no advantage for students with more exposure but equal instruction, would contradict Krashen's claim (unless some alternative explanation were available). Such a finding would also suggest that the more obvious interpretation of the Krashen (1976) and Krashen et al (1974) results, namely that more instruction predicts higher proficiency due to a genuine effect for instruction, is indeed the correct one.

The studies of type (15), to which we now turn, are therefore important not only in their own right, but because of the light they can shed on studies of type (14).

5. The effect of amount of exposure on populations with the same amount of instruction (comparison 15)

There have been three studies of type (15). All involved adult ESL acquirers in the USA, and acquirers of various proficiency levels' (see Table 5). Krashen and Seliger (1976) conducted a similar study to those described under type (14) above, with the same matched pairs design and the same measures of exposure ("practice" and length of residence). This time, however,, they matched for amount of instruction and compared members of each pair with more or less exposure. Krashen, Seliger and Hartnett (op. cit.) also followed this procedure in a third comparison in the study described earlier. In all three cases, not more, but Fewer subjects with more exposure scored higher on the proficiency measures (the difference being statistically non-significant in each case).

---

Table 5 about here

---

In the only other comparison of type (15), Martin (1980) reports the results of a study in which 166 adults (83 pairs matched on Michigan pretest scores) received 22.5 hours ESL instruction per week for 14 weeks, during which time half the students lived with other non-native speakers in university dormitories (less exposure) and half with American families in a "homestay" program (more exposure). The posttest consisted of scores on the TOEFL and class grades in grammar, reading, composition and speaking. Results of an ANOVA showed that the homestay (more exposure) students scored significantly higher on the TOEFL ( $p < .05$ ) and on all the other tests ( $p < .001$ ). Martin's

results, then, appear to conflict with those of Krashen and Seliger (1976) and Krashen et al (1974).

At least two factors distinguish Martin's study from the other two of its type- First, the students in the homestay program self-selected, or chose to participate. As Martin notes, they may, therefore\* have differed from the dormitory group in ways other than the amount of exposure they received. They may, for example, have been ~~more~~ motivated or have had different reasons for wanting to learn. In any case, their higher scores cannot be attributed with certainty to an effect for greater exposure. Second, the brief report available of Martin's study makes it seem that her subjects were receiving their first intensive exposure to English, whereas many of the subjects in the other two studies were long-time residents in the New York area. Perhaps the three-month period of the Martin study is enough for some acquisition to occur through exposure in intermediate and advanced students\* but not long enough for a ceiling on the effect of ~~exposure~~ to be reached, attainment of which means that the advantages of exposure for acquisition will have benefited students, and beyond which little or no further benefit will accrue. Several years of SL exposure for a group of subjects may benefit all of them equally, and so mask the effect of that exposure on students with more or less than the maximum useful period (one to three years?). Further data on the amount of instruction and exposure in all three studies is needed.

Meanwhile, whatever the reasons for the variable results across studies of type (15), the results themselves have implications for the type (14) studies. The fact that three null findings were obtained by Krashen and associates for amount of exposure suggests strongly that the effect for amount of instruction in studies of

type (14) is genuine, and not simply the result of a greater overall opportunity for acquisition in and out of the classroom. If true, this would have implications for various aspects of Monitor Theory, as will be discussed later. For those involved in language teaching, the reinterpretation of the type (15) studies would suggest that more instruction can be beneficial, even for students with considerable SL exposure in their language-learning histories. Studies of type (14) and (15) taken together would suggest that more instruction can also be more beneficial than more exposure for subjects of this kind.

6. The effects of amount of instruction and of amount of exposure (independently) on populations with differing amounts of both instruction and exposure (comparison 16)

Five studies have made a type (16) comparison (see Table 6). All five have found a statistically significant positive relationship between amount of instruction and test scores; three have found such a relationship for amount of exposure. The strength of the relationship with instruction was stronger than that with exposure in two of the studies finding both (Brière, 1978; Krashen, Jones, Zelinski and Usprich 1978), and weaker in one (Carroll, 1967). The null finding for amount of exposure in a study by Chihara and Oller (1978) is presumably due to the fact that the amount of exposure for their sample of 123 Japanese EFL students, (an average of about one month, judging by the mean and standard deviation reported in their Table 3, *op. cit.* p. 60), is simply insufficient for much acquisition to occur.

---

Table 6 about here

---

Without studies of type (15), it would again be difficult to interpret these findings. Each independent comparison could either be showing an effect for more instruction or more exposure, or for more

total opportunity for SLA through more total instruction plus exposure. Given the null findings for more exposure in populations with the same amount of instruction (type 15), however, one is more inclined to interpret the current pattern as further evidence of a genuine effect for amount of instruction across all five studies.

#### 7. Summary and discussion

Table 7 summarizes the 13 studies discussed above. If the interpretation proposed for them is basically correct, it would seem that there is considerable evidence to the effect that SL instruction does make a difference. There are seven studies that support this conclusion, two ambiguous cases (both of which might in fact be argued to show that instruction helps), and three which have null findings, although each again contains some hint(s) of an advantage for instruction. (The study by Martin does not speak to this issue.) Further, as shown by the sub-classifications of the studies in the Table, the effect for instruction holds (1) for children as well as adults, (2) For intermediate and advanced students, not just beginners, (3) on integrative as well as discrete-point tests, and (4) in acquisition-rich as well as acquisition-poor environments. The effect for instruction is also stronger than that for exposure in six cases.

---

Table 7 about here

---

Unless some alternative explanation exists for these results. (1) through (4) seem to run contrary to the predictions of Monitor Theory.<sup>6</sup> (1) is not predicted because children should not be able to

---

<sup>6</sup> If correct, they are, of course, problematic For some other SLA theories, too. They are reviewed in terms of Monitor Theory because it is one of the few sufficiently developed to make explicit claims about the role of instruction.

learn in Krashen's sense of the term, for they supposedly lack the cognitive maturity with which to develop conscious knowledge of rules of the SL and/or to apply them by monitoring. (2) is not predicted for somewhat more complex reasons. Instruction is supposed to result in learning, and learning is defined by Krashen as conscious knowledge of rules of the SL. This kind of knowledge (and its subsequent use via monitoring) is held only to be possible with a few "easy" grammar rules, such as third person s or the a/an distinction (cf. Seliger, 1979). Such rules are not sufficient for instruction to have made a difference at the intermediate or advanced levels, as was the case in at least six studies (see Table 7). They are not even the kind of "grammar" taught at these levels in most ESL programs. (3) is not predicted for similar reasons. Learning, in the form of conscious knowledge of such "easy" rules, is supposedly only available on discrete-point tests, which stimulate a focus of form and bring the Monitor into play if there is time for it to operate. At least five studies in Table 7 show an effect for instruction (from which learning supposedly arises) on integrative test performance. (4) is not predicted because, according to Monitor Theory, instruction is supposed only to help in the early stages of SLA, and even then chiefly as a source of comprehensible input for acquisition. It is only of use to more advanced students if they lack alternate sources of comprehensible input outside the classroom, i.e. if they live in "acquisition-poor" environments. Several studies in Table 7 appear to be showing an effect for instruction among students at later stages of SLA and with plenty of opportunity for exposure in "acquisition-rich" environments.

There are two potential alternative explanations for these findings, either of which, if sustained, would make them compatible with Monitor Theory. First, as stated above, Krashen has claimed that

the classroom will serve as a source of comprehensible input for acquisition in an otherwise acquisition-poor environment, i.e. one in which little or no comprehensible input is available outside the classroom. Examples would include foreign language learning (as with EFL in Japan, in Chihara and Oller, 1978, and Spanish in predominantly indigenous - language-speaking parts of rural Mexico, in Brière, 1978), and also SLA by learners living in a "linguistic ghetto" in the wider target language environment, e.g. the predominantly Spanish-speaking parts of East Los Angeles, (as may have been the case for some subjects in the studies by Krashen and associates in New York, and again, for some children in the study by Brière, op. cit.). This explanation does not appear to account for the findings in at least four studies in Table 7, however, where instruction was found to have an effect in acquisition-rich environments, unless nearly all their subjects failed to encounter the SL in several years of residence in countries in which the target language was spoken. Certainly, none of the studies give any indication that this was the case.

The second potential explanation lies in the nature of the input obtained by subjects in some of the studies. Monitor Theory claims that acquisition will occur when comprehensible input is available which contains input at "i + 1". Krashen (personal communication) suggests that the subjects in some studies, particularly those by Krashen and associates in New York, obtained comprehensible input through living in the USA, but not necessarily input containing "i + 1". Some, for example, may have worked in occupations in which they received English input which they understood because of its limited range, high degree of predictability, and formulaic, routine nature. A gas-station attendant, for instance, might understand everything customers said to him or her without hearing anything "new" which



was also comprehensible ("i + 1"). This would indeed account for the data. It is, however, a post hoc explanation (as Krashen is aware), and surely a likely one in only a few cases. How many subjects in these studies had such limited exposure to English (and nothing more) during fairly long periods of residence, and how true is it that such occupations are accomplished with such a limited range of input?

While there may indeed be "something wrong with the studies", in the sense that they were not measuring what they seemed to be measuring] another explanation is that there is something wrong with the theory. A Full exploration of this possibility is beyond the scope of this paper, but a few suggestions are as follows.

The First modification of Monitor Theory which would enable it to account for the data on instruction would consist of redefining the construct, learning, which seems currently to be too narrow. Learning must involve something more than conscious knowledge of "easy" grammar rules. As Krashen claims, children may not be able to develop such rules until the onset of formal operations, but they clearly do develop other kinds of metalinguistic awareness, starting at around two years of age (for review, see Clark, 19781, and as we have seen, they seem to benefit From Formal SL instruction. The same ability is presumably still available to adults. Further, as argued earlier, if conscious knowledge of the SL only involved knowledge of a few "easy" rules, there would be no way of explaining the benefit of instruction to intermediate and advanced adult acquirers, such as those studied by Brown (1980), For whom "a few easy grammar rules" are no longer what matters. Perhaps learning involves experience (obtained through instruction) of treating language as object, and the concomitant abilities this brings, including, as Krashen claims, the ability to monitor with "easy" rules when conditions permit, but also the ability

to improve SL performance in general in Language-Like behavior. Language tests of all kinds probably encourage use of this ability (possibly nor unlike Labov's "attention to speech"). Note that the studies reviewed here show subjects with experience of this kind doing better than subjects without it (or with less of it) on tests, whether discrete-point or integrative. This is a result which would be predicted, given Farhady's reanalysis of the data on discrete-point and integrative measures (Farhady, 1979). Farhady provides evidence to the effect that, whatever their relative merits as diagnostic and placement instruments, discrete-point and integrative tests are equally valid measures of SL ability.

The data on instruction would also suggest that Monitor Theory's claim as to when learning can be used, i.e. the Monitor hypothesis, also needs to be extended, to include (at least) all "language-like" behavior (not just discrete-point tests). Such a modification in the Theory would not run counter to the findings on the so-called "average order" (Krashen, 1977), for the "morpheme studies" upon which the Natural Order hypothesis rests show the effect of Krashen's notion of monitoring (via disturbed and undisturbed, or "natural" orders under different conditions), but do not discount overall improved performance through use of the monitor (for those with instruction). In fact, the "morpheme studies" were originally motivated by a search for universals in the sequence of SLA, not for the effect of instruction, for which a disturbed accuracy<sup>order</sup> is a very limited and oblique test.

As indicated above, the proposed redefinition of learning would affect the acquisition/learning distinction (by upgrading the relative importance of learning, and, thereby, of instruction), and also the Monitor hypothesis, but would not challenge the Acquisition/

learning hypothesis. Failure to broaden the concept of learning, however, would mean changing the Acquisition/learning hypothesis. If learning retained its current narrow definition, it would be necessary to posit that learning can become acquisition (cf. Krashen and Scarcella, 1978) in order to account for the apparent effect of instruction on SL acquirers at the intermediate and advanced levels, for whom instruction is associated with proficiency even after the passage of time for exposure, and so for acquisition (Table 7, studies 4, 5, 6 and 7). A re-evaluation of the importance of learning (and so of instruction), in other words, would obviate the need for a more fundamental change in Monitor Theory\* one which would be necessary if learning preserved its narrow definition and instruction its supposed rather insignificant role beyond the beginning level.<sup>7</sup>

Whatever the place of instruction in a theory of SLA, the studies reviewed here have implications for language teaching professionals. Put rather crudely, instruction is good for you, regardless of your proficiency level, of the wider linguistic environment in which you are to receive it, and of the type of test

---

<sup>7</sup> In fact, there seem to be several reasons, in addition to the data on instruction, for positing that (redefined) learning can become, or aid, acquisition - convergent validation for the idea. Some are empirically motivated (see, e.g. Peters, 1980; Schneiderman, 1982), some theoretically. As an example of the latter, positing a "cross-over" effect would reconcile studies showing an advantage for instruction in rate and ultimate attainment in SLA with the fact that many adult beginners seem capable of acquiring a native-like command of a SL syntax and semantics without instruction. -Otherwise it would be necessary to posit two types of learner (those who do/do not need instruction to go all the way), a distinction which would make a theory more powerful, and for which there seems to be no compelling independent motivation.

you are going to perform on. Instruction appears to be especially useful in the early stages of SLA and/or in acquisition-poor environments, but neither of these conditions is necessary for its effects to show up. Further, there is some slight evidence that larger proportions of instruction are helpful in cases of instruction and exposure, but the evidence is only slight. Lastly, while the positive effects for instruction in the study by Brière (1978) are probably due at least in part to the instruction having taken place in an acquisition-poor environment, there is some indication from other studies (Fathman, 1976; Hale and Budar, 1970) that instruction can help children and adolescents as well as adults, with the benefits again being strongest at beginning levels and in acquisition-poor environments, but possibly not limited to these.

For SLA theory and SL educators alike, on the basis of currently available studies, an answer to the question, "Does SL instruction make a difference?" is a not-so-tentative "Yes". However, even if, as I hope, the data on instruction have been correctly interpreted here, they are obviously not as clearcut or as "positive" as most TESOL professionals would like. There is obviously a genuine need for further research addressing at least four questions :

1. Does SL instruction make a difference?
2. Does type of instruction make a difference?
3. Does type of learner make a difference?
4. Does type of instruction interact with type of learner?

Answers to these questions are vital, not just for the credibility of TESOL as a profession, but because they will affect the lives of countless individuals, children and adults, for whom a SL is the gateway to education and to economic and social survival.

#### REFERENCES

- Brière, E. J. 1978. Variables affecting native Mexican children's learning Spanish as a second language. Language Learning 28, 1, 159-174.
- Brown, J. D. 1980. Newly placed students versus continuing students: comparing proficiency. In J. C. Fisher, M. A. Clarke and J. Schachter (eds.), On TESOL '80. Washington, D.C. : TESOL, 111-119.
- Carroll, J. B. 1967. Foreign language proficiency Levels accained by language majors near graduation from college. Foreign Language Annals 1, 131-151.
- Chihara, T. and J. W. Oller, Jr. 1978. Attitudes and attained proficiency in EFL: a sociolinguistic study of adult Japanese speakers. Language Learning 28, 1, 55-68.
- Clark\* E. V. 1978. Awareness-of language: some evidence from what children say and do. In A. Sinclair, R. J. Jarvella and W. J. M. Levelt (eds.), The Child's Conception of Language. Berlin : Springer-Verlag, 1978, 17-43.
- Farhady, H. 1979. The disjunctive Fallacy between discrete-point and integrative tests. TESOL Quarterly 13, 3, 347-357.
- Fathman, A. 1975. The relationship between age and second language productive ability. Language Learning 25, 2, 245-253.
- Eathman, A. 1976. Variables affecting the successful learning of English as a second language. TESOL Quarterly 10, 4, 433-441.
- Hale, T. and E. Budar. 1970. Are TESOL classes the only answer? Modern Language Journal 54, 487-492.
- Krashen, S. 1976. Formal and informal linguistic environments in language learning and language acquisition. TESOL Quarterly 10, 157-168.
- Krashen, S. 1977. Some issues relating to the Monitor Model. In H. D. Brown, C. A. Yorio and R. Crymes (eds.), On TESOL '77. Washington, D.C. : TESOL, 1977, 144-158.
- Krashen, S. 1980. The input hypothesis. In J. E. Alatis (ed.), Current Issues in Bilingual Education. Washington, D.C. : Georgetown University Press, 1980.
- Krashen, S. 1981. Second Language Acquisition and Second Language Learning. Oxford : Pergamon Press.
- Krashen, S. In press. Principles and Practice in Second Language Acquisition. Oxford : Pergamon Press.

- Krashen, S., C. Jones, S. Zelinski and C. Usprich. 1978. How important is instruction? English Language Teaching Journal 32, 4, 257-261.
- Krashen, S. and R. Scarcella. 1978. On routines and patterns in language acquisition and performance. Language Learning 28, 2, 283-300.
- Krashen, S. and H. W. Seliger. 1976. The role of formal and informal linguistic environments in adult second language learning. International Journal of Psycholinguistics 3-4, 5, 15-20.
- Krashen, S., H. W. Seliger and D. Hartnett. 1974. Two studies in adult second Language learning. Kritikon Litterarum 3, 220-228.
- Martin, G. M. St. 1980. English language acquisition: the effects of living with an American family. TESOL Quarterly 14, 3, 388-390.
- Mason, C. 1971. The relevance of intensive training in English as a foreign language for university students. Language Learning 21, 2, 197-204.
- Peters, A. M. 1980. Units of acquisition. University of Hawaii Working Papers in Linguistics.
- Pica, T. 1982. An investigation of adult second language acquisition in three language contexts. Unpublished Ph.D. dissertation. Philadelphia : University of Pennsylvania.
- Schneiderman, E. 1982. The modified stage hypothesis: a critical evaluation. Paper presented at the 4th Los Angeles Second Language Research Forum, UCLA, April, 1982.
- Seliger, H. W. 1979. On the nature and function of language rules in language teaching. TESOL Quarterly 13, 3, 359-369.
- Upshur, J. A. 1966. Four experiments on the relation between foreign language teaching and learning. Language Learning 18, 1 & 2, 111-124.

**Table 1. Instruction, exposure, and second language acquisition (SLA) : possible comparisons**

<u>Comparison</u>	<u>Issue addressed</u>
1. $I_i$ vs $\emptyset_i$	Effect of instruction in populations with instruction only
2. $E_i$ vs $\emptyset_i$	Effect of exposure in populations with exposure only
3. $I_i$ vs $I_j$	Effect of amount of instruction in populations with instruction only
4. $E_i$ vs $E_j$	Effect of amount of exposure in populations with exposure only
5. $I_i$ vs $E_i$	Relative utility of instruction and exposure
6. $I_i$ vs $E_j (+ I_k)$	SLA process (sequence of acquisition)
7. $I_i$ vs $I_i + E_j$	SLA process (sequence of acquisition)
8. $E_i$ vs $E_i + I_j$	SLA process (sequence of acquisition)
9. $E_i + \emptyset_j$ vs $E_i + I_j$	Effect of instruction on populations with exposure
10. $I_i + \emptyset_j$ vs $I_i + E_j$	Effect of exposure on populations with instruction
11. $I_i$ vs $\underline{I + E}_i$	Relative utility of instruction only and the same total amount of instruction and exposure
12. $E_i$ vs $\underline{I + E}_i$	Relative utility of exposure only and the same total amount of instruction and exposure (Table 2)
13. $\underline{I_j + E}_i$ vs $\underline{I_k + E}_i$	Relative utility of differing amounts of instruction and exposure in populations with the same total amount of both (Table 3)
14. $E_i + I_j$ vs $E_i + I_k$	Effect of amount of instruction on populations with the same amount of exposure (Table 4)
15. $I_i + E_j$ vs $I_i + E_k$	Effect of amount of exposure on populations with the same amount of instruction (Table 5)
16. $I_i + E_k$ vs $I_j + E_m$	Effects of amount of instruction and of amount of exposure (independently) on populations with differing amounts of both instruction and exposure (Table 6)

I = instruction. E = exposure.  $\emptyset$  = "filler" activity.  $_i$  = same amount

Table 2. Relative utility of exposure only and the same total amount of instruction (I) and exposure (E)

<u>Study</u>	<u>Subjects &amp; proficiency Level</u>	<u>Treatment</u>	<u>Duration</u>	<u>Test type</u>	<u>Results</u>
1. <u>Hale and Budar (1970) ESL in Hawaii</u>	grades 7-12 B I A	mainstreaming vs pull-out ESL	1-year & 2-year cohorts	DP I	1. no difference after 1 year ( $\chi^2 = 3.45, p > .05$ ) <sup>*</sup> 2. E only better after 2 years ( $\chi^2 = 15.02, p < .001$ ) <sup>†</sup> 3. E only better overall ( $\chi^2 = 20.42, p < .001$ ) <sup>†</sup>
2. <u>Upshur (1968) ESL at U. of Michigan</u>	adults I A	law classes vs ESL plus law classes	7 weeks	DP	1. no significant difference between groups (ANCOVA) <u>Note</u> : non-equivalent control groups. Pre-test showed ceiling effect for E only group. Lower proficiency ESL groups had higher gain scores.
3. <u>Mason (1971) ESL at U. of Hawaii</u>	adults A	regular university classes vs ESL plus fewer classes	3 months	DP I	1. no significant difference between matched groups 2. significant pretest differences on listening & writing for unmatched group had disappeared post-test. <u>Note</u> : the t of 1.8 on the structure post-test is significant ( $p < .05$ ) for a one-tail test with 11 df. - an effect for I plus E (cf. Mason, Table 1)
4. <u>Fathman (1975) ESL in Washington, DC.</u>	children 6-10 & 11-15 years B I A	mainstreaming vs pull-out ESL	1, 2 & 3-year cohorts	I	1. no significant difference between groups 2. no interaction effects for age, I or length of residence in USA <u>Note</u> : Hint of slight advantage for older child I plus E group after 1 year (E only $\bar{x} = 28.0$ , I plus E $\bar{x} = 34.2$ - see Fathman, Table 2)
<p>B = beginning, I = intermediate, A = advanced. DP = discrete-point, I = integrative.  reanalysis or interpretation differing from that of the original author(s)</p>					



Table 3 : Relative utility of <sup>(1)</sup> differing amounts of instruction and exposure in populations with both

<u>Study</u>	<u>Subjects &amp; proficiency level</u>	<u>Treatment</u>	<u>Duration</u>	<u>Test type</u>	<u>Results</u>
1. <u>Upshur</u> (1968)	adults I A	1 vs 2 hours ESL per day, plus E (law classes)	7 weeks	DP	1. m significant effect for amount of I
2. <u>Fathman</u> (1976)	children (elem. & sec. sch.) B I A	3, 5 or 10 hours ESL per week, plus E (sch. classes)	1 year ESL	I	1. larger gains for groups with more ESL* <u>Note</u> : the usual problems with interpreting gain scores, however

\* interpretation differing from that of original author

Table 4 : Effect of amount of instruction<sup>(1)</sup> on populations with the same amount of exposure(E)

<u>Study</u>	<u>Subjects &amp; proficiency level</u>	<u>Treatment</u>	<u>Duration</u>	<u>Test type</u>	<u>Results</u>
1. <u>Krashen &amp; Seliger</u> (1976)	adults I A	DPIE <sup>#</sup>	(from months to years?)	I	1. in 9 pairs matched for amount of practice <sup>¢</sup> , members with more I scored higher in 7 cases (p < .025)
2. <u>Krashen, Seliger &amp; Hartnett</u> (1974)	adults B I A	DPIE	(long residence for most; I?)	DP	1. in 8 pairs matched for amount of practice <sup>¢</sup> , members with more I scored higher in 6 cases (p < .04) 2. in 11 pairs matched For amount of E (residence in US), but in which member with less I had more practice <sup>¢</sup> , members with more I scored higher in 8 cases (p < .025)

<sup>#</sup> DPIE = differing periods of I and E  
<sup>¢</sup> 'practice' = yrs. of residence x amount of English spoken outside class on a scale of 1 to 10

Table 5 : Effect of amount of exposure on populations with the same amount of instruction (E)

<u>Study</u>	<u>Subjects &amp; proficiency level</u>	<u>Treatment</u>	<u>Duration</u>	<u>Test type</u>	<u>Results</u>
1. <u>Krashen &amp; Seliger</u> (1976)	adults I A	DPIE	(from months to years?)	I	1. in 14 pairs matched for amount of I, members with more practice scored higher in only 6 cases (n.s.) 2. In 12 pairs matched for amount of I, members with more E (residence in US) scored higher in only 4 cases (n.s.)
2. <u>Krashen, Seliger &amp; Hartnett</u> (1974)	adults B I A	DPIE with long residence period in most cases	(long residence period in most cases; I?)	DP	1. in 21 pairs matched for amount of I, members with more practice scored higher in only 10 cases (n.s.). Note : same result obtained even in a subset of pairs with less than 1 year of I
3. <u>Martin</u> (1980)	adults I A	22.5 hours ESL a week for all; dormitory residence with other-foreign SS or homestay program with American fams.	14 weeks	DP I	1. ANOVA showed means of homestay (more E) group were higher on all five posttests ( $p < .05$ for TOEFL, $p < .001$ for other four) than means of dormitory residents (less E) group

Table 6 : Effects of amount of instruction<sup>(I)</sup> and of amount of exposure<sup>(E)</sup> (independently) on populations with differing amounts of both instruction and exposure

Study	Subjects & proficiency level	Treatment	Duration	Test type	Results
1. <u>Krashen</u> (1976)	adults B I A	ESL I and/or E by residence in USA	wide range of each	I	1. positive correlation between amount of I and test scores ( $r = .42, p < .001$ ) 2. no significant relationship between amount of E and test scores ( $r = .014, n.s.$ )
2. <u>Krashen, Jones, Zelinski &amp; Usprich</u> (1978)	adults I A	ESL I and residence in USA	DPIE; $\bar{x}$ E = 4.05 yrs. $\bar{x}$ I = 2.28 yrs.	DP I	1. positive correlation between amount of I and scores on all tests ( $r_s = .34$ to $.50, p < .005$ to $.001$ ) 2. positive correlation between amount of E and scores on all tests ( $r_s = .18$ to $.25, p < .05$ to $.01$ )
3. <u>Brière</u> (1978)	children B	Sp.F/SL & limited E by parent SL use	1 yr. plus of I, & DPE	DP	1. positive correlation between amount of I and scores on listening ( $r = .59$ ) & other tests ( $r = .64$ ) 2. positive correlation between amount of E and scores on listening ( $r = .52$ ) & other tests ( $r = .43$ )
4. <u>Carroll</u> (1967)	adults B I A	FLI, & E by "year abroad" & some parental use	DPIE	I	1. significant correlation between amount of I and MIA listening test scores ( $r_s = .01$ to $.18$ ), $p < .01$ For 2 of 4 SLs (French & Spanish) 2. positive correlation between amount of E and MIA listening test scores ( $r_s = .24$ to $.60$ ), $p < .05$ for Russian & $p < .01$ For French, Spanish & German
5. <u>Chihara &amp; Oller</u> (1978)	adults B I A	EFL, & short US visits	DPIE; $\bar{x}$ E = 1 month, $\bar{x}$ I = 8.41 yrs(Japan)	DP I	1. positive correlation between amount of I and scores on all four tests ( $r_s = .45$ to $.48, p < .001$ ) 2. no significant relationship between amount of E and test scores ( $r_s = .01$ to $.12, n.s.$ )

Note : very low amount of E

Table 1: Relationships between instruction, instructional exposure, and proficiency

Study	SLA type	Subjects	Proficiency (B, I or A)*	Acq. envmt.	Test type (DP or I) #	Instm. helps?	Exposure helps?	I > E or E > I?
<u>Studies showing that instruction helps</u>								
1. <u>Carroll, 1967</u>	FLL in USA & SLA abroad	adults	B I A	mixed	I	yes	yes	E > I
2. <u>Chihara &amp; Oller, 1978</u>	EFL (Japan)	adults	B I A	poor	DP I	yes	no	I > E
3. <u>Brière, 1978</u>	SpSL (Mexico)	chldren	B	mixed	DP	yes	yes	I > E
4. <u>Krashen, Seliger &amp; Hartnett, 1974</u>	ESL in USA	adults	B I A	rich	DP	yes	no	I > E
5. <u>Krashen &amp; Seliger, 1976</u>	ESL in USA	adults	I A	rich	I	yes	no	I > E
6. <u>Krashen, 1976</u>	ESL in USA	adults	B I A	rich	I	yes	no	I > E
7. <u>Krashen, Jones, Zel- inski &amp; Usprich, 1978</u>	ESL in USA	adults	B I A	rich	DP I	yes	yes	I > E
<u>Ambiguous cases</u>								
8. <u>Hale &amp; Budar, 1970</u>	ESL in USA	adolsnts.	B I A	rich	DP I	?	yes	E > I?
9. <u>Fathman, 1976</u>	ESL in USA	children	B I A	rich	I	?	yes	E > I?
<u>Studies showing that instruction does not help</u>								
10. <u>Upshur, 1968 (Exp. 1)</u>	ESL in USA	adults	I A	rich	DP	no	—	—
11. <u>Mason, 1971</u>	ESL in USA	adults	I A	rich	DP	no	—	—
12. <u>Fathman, 1975</u>	ESL in USA	chldren	B I A	rich	I	m	—	—
<u>Additional study showing that exposure helps</u>								
13. <u>Martin, 1900</u>	ESL in USA	adults	I A	mixed	DP I	—	yes	—
* B = beginning; I = intermediate; A = advanced. # DP = discrete point; I* = integrative.								