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#### **ABSTRACT**

A study conducted in the intensive English language program at Indiana University investigated: (1) the effects of students' language learning background (formal learning of English, exposure to and use of English in class, and extracurricular exposure to and use of English) on their performance on the Test of English as a Foreign Language (TOEFL); and (2) students' perceptions of their current language learning needs and of language instruction in their home countries. Subjects were 101 students from a variety of native language backgrounds. Results suggest that two background factors (extensive outside reading and high teacher proficiency in English) have a significant positive effect on TOEFL performance, and that communicative oral use of English in and outside of class affects TOEFL performance through its positive influence on outside reading behavior. Student observations also highlighted the importance of proficient and qualified teachers. It is concluded that these criteria should be incorporated in evaluation of English programs, focusing less on specific test results than on the conditions that promote the ability to function in the target language. (MSE)

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# PROGRAM EVALUATION IN LIGHT OF LANGUAGE LEARNING BACKGROUND, STUDENT ASSESSMENTS AND TOEFL PERFORMANCE

Harry L. Gradman and Edith Hanania

#### INTRODUCTION

We have carried out a study of the language learning background of students in our intensive English program to identify variables which have a positive effect on students' TOEFL performance. Data were collected from over 100 students in the program and the information coded and statistically analyzed. Using multiple regression and path analysis, we developed a model showing direct and indirect effects of a number of background variables on students' TOEFL scores. These variables, which include communicative use of English in class and extensive outside reading, suggest aspects of language teaching which may be used in program evaluation. The study also investigated the students' perceptions of their current language learning needs and their suggestions for improving language teaching in their home country. The students' assessments and the results of the statistical analysis provide useful guidelines for the evaluation of ESL programs at home and abroad.

At the Center for English Language Training at Indiana University, we have been interested in identifying factors in our students' language learning background which have a significant effect on language proficiency. Our main focus is students from other countries who have come to the United States to pursue higher education at American Universities. For the purpose of admission to academic university programs, the language proficiency test that is commonly used in the United States is the TOEFL (Test of English as a Foreign Language). We have therefore investigated background factors in relation to performance on the TOEFL examination, using as a reference point the initial TOEFL scores which the students obtained upon entering our Intensive English Program. We also looked into our students' perceptions of their language learning needs and their suggestions for improving language teaching in their home countries.

In this paper, we bring to bear findings from our research on the evaluation of ESL programs at home and abroad. We will first outline our procedure and summarize our findings, and then we will consider the implications of these findings for program evaluation.

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## **PROCEDURE**

The data for the study were collected by individual interview from 101 students in our Intensive English Program at Indiana University. The students came from a variety of first-language backgrounds, about equally distributed between Arabic, Japanese, Romance, and other languages. They had learned English in a formal environment to varving degrees, and their initial TOEFL scores with us were normally distributed. The background language learning information was elicited through an oral questionnaire and fell into four major categories: formal learning of English, exposure to and use of English in class, exposure to and use of English out of class, and attitudes and motivation. The items of information were coded and quantified, resulting in 44 background variables whose effects on the TOEFL scores were to be examined. Students' observations on aspects of their language learning background were also elicited and categorized.

The students' scores on TOEFL were used as a measure of language proficiency. TOEFL is a standardized instrument for language assessment which is widely used by universities in the United States for admission purposes. The examination is comprehensive and covers a range of language abilities, from elementary to advanced levels. Foreign students commonly must attain a specified minimum score as a prerequisite for admission to university work. The students in our Intensive English Program take an institutional version of the TOEFL at the end of each seven-week session. This tessonsists of three sections: Listening Comprehension, Structure and Written Expression, and Vocabulary and Reading Comprehension.



Three types of statistical analysis were used to examine the effects of background factors on language proficiency. The first was pairwise correlations between all the variables and the TOEFL scores, which led to the selection of a set of promising variables for closer examination. The second was multiple regression analysis, which further identified variables with a significant effect

on TOEFL. The third was path analysis on a basic structural model, which showed both direct and indirect effects.

## RESULTS OF THE QUANTITATIVE ANALYSIS

The first type of analysis was pairwise correlations between all the variables. Table 1 shows the background variables which correlated significantly (p=.05) with TOEFL scores.

Table 1 Background variables which correlated significantly with the TOEFL scores (p=.05)

Ŧ
.53
.39
.36
.26
.21
.21

For a list of the variables, see Appendix 1

As can be seen from Table 1, the highest correlation coefficient was obtained for extracurricular reading. It may also be noted that the first four variables seem to reflect the extent of exposure to and use of English for meaningful communication. The last two are related to attitudinal and motivational factors. Surprisingly missing from this list are classroom variables, such as index of oral exposure, index of oral use, and index of writing use, as well as the extracurricular variables of writing, speaking and listening, all of which involve the use of English in communication. However, examination of the full intercorrelation matrices revealed that the above variables that did not correlate directly with TOEFL, nonetheless correlated significantly with outside reading, which correlated well with TOEFL. This suggested the presence of indirect effects, which were later explored through path analysis.

Based on the patterns of intercorrelation, 22 background variables were selected for further examination through multiple regression analysis. The results of this analysis, using the stepwise forward procedure (selection criterion p=.05), are given in Table 2.

Table 2 Multiple regression analysis for 22 background variables with the TOEFL scores

Steps		<u>R</u>	<u>R2</u>
1.	Extracurricular reading	.53	.28
2	+ Native speaking teachers	.59	.35
3	+ Total index of exposure	.64	.40 (neg. beta)
4	+ Extracurricular speaking	.66	.43 (ncg. beta)
All 22	variables (backward procedure)	.75	.57

For a list of the variables see Appendix 1



As can be seen in Table 2, the single most important background factor affecting performance on TOEFL is outside reading, followed by exposure to teachers who are native speakers of English. The two factors combined account for over one third of the variance in the TOEFL scores (R2=.35). The 22 variables together account for well over half this variance (R2=.57). The seemingly negative effects of total index of exposure and extracurricular speaking will in the next analysis (path analysis) be seen to conceal positive, though indirect, effects.

Path analysis was undertaken in order to explore the indirect relationships observed in the pairwise correlations and the unexpected negative effects observed in the multiple regression results. In this type of analysis, a causal model is formulated, consisting of a set of variables with interconnecting paths indicating the direction of effects. The statistical procedures calculate coefficients for the effects and evaluate the model by determining the extent to which it fits the available data. The statistical program we used for this purpose is LISREL (Analysis of Linear Structural Relations).

To date, we have constructed a basic model comprised of six variables: two classroom variables, three extracurricular (or outside class) variables, and the TOEFL scores. The paths lead from the classroom variables to the outside of class variables, and from these to outside reading and to TOEFL. The model showing the variables and the selected paths, all unidirectional, is illustrated in Figure 1. Preliminary results from the application of the statistical program LISREL to the full model indicated that a number of paths in the model did not represent statistically significant effects. The model was therefore trimmed to eliminate these relationships from the equation. The resulting modified model, showing the remaining paths and their coefficients, is presented in Figure 2.

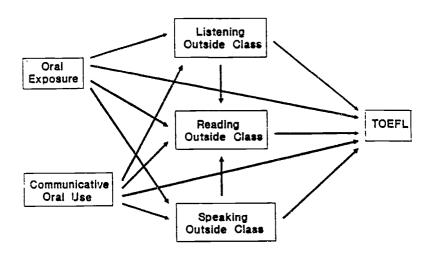


Figure 1
Structural Equation Hodel used for Path Analysis (LISREL)

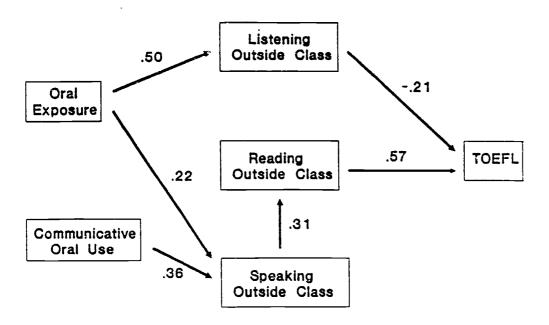


Figure 2
Modified Structural Equation Model Showing Significant Paths
and their Coefficients

Goodness of fit index = .98

As can be seen, reading outside class again shows a strong direct effect on the TOEFL scores. The only other variable in this model that has a direct effect on TOEFL is listening outside class, but this relationship is a negative one. Speaking outside class, which had a negative relation with TOEFL in the multiple regression analysis, now shows a positive effect on TOEFI through its effect on reading. Likewise, the two classroom variables, oral exposure to English and communicative oral use of English, are now seen to affect TOEFL indirectly. Both have paths with positive direct effects on outside speaking, which in turn leads through outside reading to TOEFL. Oral exposure, in addition, has a path to outside listening, which has a negative relationship with TOEFL.

What this model seems to indicate is that the single most important factor in improving proficiency as reflected in the TOEFL scores is outside reading. Extent of oral exposure and communicative use of English in class and out of class have a positive, though indirect, effect on TOEFL in so far as they promote outside reading, but not through their effect on outside listening. Outside listening, which reflects the extent to which learners were exposed to English speech through radio, television, or film, appears to have a negative relationship with TOEFL.

Two aspects of these findings require further comment: the negative relationship between outside listening and TOEFL, and the strong positive relationship between outside reading and TOEFL.

Concerning outside listening, it should be noted that in our study the scores for this variable do not necessarily reflect active listening. In most cases, the students reported that, while viewing English programs, they relied totally on the native language subtitles and did not pay attention to or were unable to understand English speech. This type of exposure, therefore, did not represent comprehensible input, unlike the active listening included in the classroom variable, oral exposure. However, this explanation still leaves unaccounted for the negative relationship of outside listening with TOEFL scores. One possible interpretation is that students with higher outside listening scores may have a tendency towards passive viewing at the expense of more demanding activities, such as reading and social communication.

As for outside reading, the results of the study clearly appear to indicate that reading for personal information or pleasure is a more important means of implicit learning than exposure to and use of spoken English in and out of the classroom. It may be argued that the prominence of this factor reflects the degree to which good performance on the TOEFL depends on reading ability. While this may partly be the case, it seems unlikely that the use of reading as a medium for this examination can adequately account for the strength of the relationship of outside reading with TOEFL and its subsections. It would seem more likely that extensive outside reading helps to improve the level of proficiency in a global sense, enhancing acquisition of grammar, vocabulary, and rhetorical structure, as well as increasing the general knowledge base which helps in reading comprehension.1

In order to explore this point further, we ran multiple regression analysis using only those students in our sample who had entered at the three upper levels of our program (levels 4, 5, and 6) on the assumption that, for this more advanced group, basic reading skills had already been acquired. The results of this analysis (not tabulated) confirmed our finding for the whole sample. Outside reading was once again the most important, indeed the only, factor with a significant effect on TOEFL scores. Those students who read extensively out of class within this more advanced group attained higher levels of proficiency.

Another type of analysis that we applied to the data gave further support to the importance of outside reading in enhancing language proficiency. Using the t-test, we examined differences in the mean TOEFL scores of students who had done some outside reading and those who had not. We found that, even among students who had had the benefit of studying in an intensive English program, the mean scores of those who had done outside reading were significantly higher than those who had not.

The dominant role of outside reading which emerged from this study, although unexpected, is perhaps not surprising. Elley and Mangubhai (1983) in their experimental study on the effect of an extensive reading program on the language development of students in a number of Fijian primary schools found that students exposed to extensive reading of high-interest story books made significantly greater gains in language skills than the control group. In a more recent study, Tudor and Hafiz (1989) found that extensive reading improved students writing significantly, particularly the level of accuracy. These findings are in accord with the theoretical viewpoint put forward by Krashen that reading, by providing extensive comprehensible input, is an important and effective means of acquiring language (Krashen 1981, 1988, 1989).

To sum up, the background factors which were found to have a direct positive effect on TOEFL scores were outside reading and teachers who were native speakers of English. Exposure to and use of spoken English in class and out of class for communicative purposes seem to be helpful only in so far as they promote outside reading. Although our present path analysis model does not include the variable native speaking teachers, it is reasonable to expect that a strong relationship holds between this tactor and extent of exposure to and use of spoken English for communication in class and out of class. Indeed, pairwise correlation coefficients between these variables and native speaking teachers were quite high, ranging between .42 and .46.

# RESULTS OF THE STUDENTS' OBSERVATIONS

Another aspect of the language learning background that we examined in this study was based on the students' qualitative observations. During the interview, we elicited from



the students their comments on four aspects of their language learning experience: (1) why they liked or did not like their English class in high school; (2) what characteristics they valued in teachers of English whom they remembered as particularly good; (3) what they perceived to be their present language learning needs; (4) what their suggestions would be for improving the teaching of English in their home countries. Their responses, which were revealing, are outlined in this section.

Concerning the students' attitude towards learning English, about 45% of the students said that they had liked their English class when they were in school. The reasons they gave were fairly evenly distributed among the following categories:

- (1) They thought English was useful or important. (27%)
- (2) They liked English as a language, liked its sounds, liked to speak it. (20%)
- (3) They regarded English class as an enjoyable period in which they could participate actively. (20%)
- (4) They liked the teacher. (16%)
- (5) They did well in English. (16%)

The reasons students gave for not liking English class represent the other side of the coin and are at least equally interesting. The reasons given, in order of frequency (high to low), are as follows:

- (1) English was too difficult; they could not understand it and did poorly in it. (40%)
- (2) The English class was boring, not interesting, a waste of time. (32%)
- (3) They did not like the teacher. Reasons given included that the teacher was too mean, too strict, was not interested in teaching, could not speak or pronounce English well. (19%)
- (4) English was not useful to them; it was imposed on them. (17%)
- (5) The material taught was not relevant to their needs or interests. For example, they wanted to learn to speak but they were taught only grammar and reading. (6%)

These observations are echoed in the characteristics of teachers of English whom the students remembered as being particularly good. About 80% of the students said that they had had memorably good teachers. The characterizations that these students gave are listed below in the order of their frequency of mention:

- (1) The teacher explained well, had a clear purpose, and was serious about helping the students learn English. (39%)
- (2) The teacher had pleasing personality traits. Descriptions included: friendly, kind, encouraging, interesting, and having a sense of humor. (32%)
- (3) The teacher used a variety of interesting activities and materials and encouraged the students to use English. (27%)
- (4) The teacher spoke English well, had good pronunciation, and used English in class. (23%)
- (5) The teacher made the students realize the importance of English in their lives and for their futures. (3%)



The next question concerned the students' perceptions of their current language needs. Of course, one must keep in mind that the students' responses reflect the fact that they are living in an English-speaking environment now and that most of them are planning to continue their education in American universities. It is therefore not surprising that the vast majority of the students felt that they needed more practice in listening and speaking. However, in addition, about 40% of the students mentioned the need to improve their reading and 6% their vocabulary through reading; about 28% recognized a need to improve their writing; about 9% felt they needed grammar, and about 4% said they needed to study hard. Two observations may be noted in connection with these results. The first is that our students' needs included all the language skills, singly or in various combinations, which confirms to us that none of these skills is superfluous in our program. The second is that there were important individual differences between the students, based on their past backgrounds and

their future purposes, and that an intensive English program would do well to incorporate a measure of flexibility that would accommodate these differing individual needs.

In the last question, we asked our students to suggest how the teaching of English could be improved in their home country. Of course we realize -- and many of the students pointed this out -- that the teaching of English has changed dramatically over the past few years and that many improvements have been introduced. Nonetheless, the suggestions made by the students, based on their own experience and perceived needs, do provide valuable criteria for evaluating English language programs.

Most students called for the extensive use of English in English class and for increased attention to listening and speaking. Many stressed the importance of having teachers who are highly proficient in English, either native speakers or teachers who have received their professional education in English-speaking countries. Another set of suggestions relate to the interest factor in the classroom: varying the teaching methods and materials to include songs, games, tapes, movies, and reading analysis rather than mere translation. It was also suggested that reading and discussion should be on topics of current interest, and that the grammar should be of practical value rather than consisting of abstruse rules that are memorized with the object of passing exams. Several students also expressed the opinion that teachers should help their students recognize the importance of English in the modern world, encourage their efforts to learn the language, and make allowance for differences in individual ability within the class. We should perhaps add here that we were struck by the consistency in the observations the students made about their language learning experiences and their preferences, regardless of their native language and educational background.

To conclude, in our study we used the TOEFL examination scores of our students to help us identify aspects of their language learning backgrounds which contribute to language proficiency. We found that two background factors have a significant effect on TOEFL: extensive outside reading, and teachers who have an excellent command of English. We also found that communicative oral use of English in class and out of class affects performance on TOEFL through its positive effect on outside reading. These findings, along with the students' observations, which tend to highlight the importance of proficient and qualified teachers, provide a set of useful criteria for evaluating English teaching programs based, not on how students do on a particular test, but on the conditions that seem to promote the ability to function in the target language.

#### **NOTES**

1 For the linguistic knowledge and complex processes involved in reading comprehension, see Goodman 1988, Carrell 1988, and Eskey 1988. For the relationship between general language competence and reading proficiency, see Elley 1984, and Devine 1988.



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# Background Variables Considered

## Formal Learning of English

\*Age at start of English

Years of English in school

Years of English in University

\*Months in intensive or special English programs

Months of private English tutoring

Contact hours for each of the above

\*Total contact hours

Years since last English class

\*Type of schooling: private/public

# Exposure to and Use of English in Class

\*Teachers who are native speakers of English

\*English as language of instruction

\*French or Spanish as language of instruction

Index of exposure to oral English

Exposure to instructions

Exposure to explanations

Index of oral use

Oral use - sentence practice

\*Oral use communicatively

\*Index of writing

Writing - sentence practice

Writing communicatively (composition)

Index of communicative use (oral + written)

Audio-visual index

Listening to tapes

\*Language Lab

\*Total index of exposure

(index of exposure + listening to tapes)

Teaching focus

(grammar translation/grammar reading/all skills)

Type of intensive/special English program

(home country/ES teachers/ES country)

# Extracurricular Exposure to and Use of English

\*Listening

\*Reading

\*Speaking

\*Writing

Travel to English speaking countries



# Attitude and Motivation

- \*Attitude to English class in high school
- \*Recognition of the need for English when in high school
- \*Effective teachers of English
- \*Family encouragement for learning English
- \*Family graduates from English speaking countries
- \*Current English use out of class
- Current reason for intensive English
- \*Future need for English on return to the home country
- \*= the 22 variables selected for multiple regression analysis

