RESEARCH REPORT

Free Voluntary Reading as a Predictor
of TOEFL Scores

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Forty-three international university students, currently living in the United States, filled out a questionnaire probing years of English study, length of residence (LOR) in the US, free reading habits in the first and second language, and TV watching. Despite the fact that subjects reported little reading in English, this variable was a significant predictor of TOEFL test performance. In addition, English study in the home country and length of residence in the US were also related to TOEFL scores.

Hanania and Gradman (1991) reported that the best predictor of TOEFL scores among international students who took the exam before coming to the United States was "extracurricular reading." Constantino (1995), in a case study of four international students in the United States, also reported that increased pleasure reading had a very positive effect on TOEFL performance among the three who did extensive pleasure reading; her subject who did only formal study did not do well on the exam. These results are in agreement with a large number of studies showing a clear relationship between pleasure reading and several aspects of literacy development, including reading comprehension,

writing style, spelling, grammatical competence, and vocabulary (reviewed by Krashen, 1993). In this study, we investigate the relationship between pleasure reading and TOEFL scores for international students currently living the United States.

Procedure

Subjects: 43 international students (17 female, 26 male) from 14 different countries (South Korea, China, Taiwan, Saudi Arabia, India, Switzerland, Spain, Japan, Brazil, Indonesia, Thailand, Lebanon, Ukraine, and Hong Kong) participated in the study. All subjects were currently university students in the United States, and some are still enrolled in English as a Second Language classes. All had taken the TOEFL examination.

Instrument: Subjects filled out a 13-item questionnaire, which included questions about their TOEFL score, the frequency and amount of reading done in their first language and in English, TV viewing in English, frequency of visits to the library and bookstore, and the number of books they read in English before taking the TOEFL examination. Subjects required a maximum of ten minutes to fill out the questionnaire.

Results

Table 1 presents the results of the questionnaire.

Table 2 indicates that TOEFL scores were correlated with amount of English study done in the home country (r = .367), the composite measure of free reading (r = .39), and the number of books read (r= .447). Additional study done in the US was not a significant predictor of TOEFL scores, but the mean amount of study done in the US was only 1.35 years. The correlation between length of residence in the US and TOEFL scores was positive but did not reach statistical significance.

Table 3 presents the results of a simultaneous multiple regression analysis. Only three variables were entered into the analysis, because of the relatively small number of subjects used. The variables used were those that were of the most theoretical interest, and that showed modest to high correlations with TOEFL scores. "Books read" and "free reading" were combined into one predictor, as they were highly correlated (r = .714).

TABLE 1
Descriptive Statistics

Item	Mean	s.d.
1. Age	25.79	4.03
2. Score on TOEFL examination	564.55	49.35
3. Years of English study in home country	8.60	3.54
4. Years of English study in US before taking TOEFL	1.35	3.39
5. Length of residence in US (months)	18.74	22.06
6. Amount of English TV watched each day before taking TOEFL 1 = never 2 = less than one hour/day 3 = 1-3 hours/day 4 = more than 3 hours/day	2.09	.781
7. Frequency of English newspaper reading before taking TOEFL 1 = never 2 = less than one hour/day 3 = 1-3 hours/day 4 = more than 3 hours/day	1.70	.599
8. Amount of free reading done in English before taking TOEFL 1 = none 2 = 1-3 months 3 = 4-6 months 4 = 7-12 months 5 = 1-2 years 6 = more than 2 years	2.84	1.70

TABLE 1 (cont.)

Item	Mean	s.d.
9. Frequency of reading books for fun in English before taking TOEFL 1 = none 2 = 1-2 times a year 3 = 3-6 times a year 4 = 1-2 times a month 5 = 1-2 times a week 6 = more than 2 times a week	3.02	1.73
10. Number of books read in English before taking TOEFL 1 = none 2 = 1-5 books 3 = 6-10 books 4 = 11-50 books 5 = more than 50 books	2.28	1.12
11. Frequency of visiting bookstores or libraries since coming to the US for pleasure reading 1 = none 2 = 1-3 times a month 3 = 1-2 times a week 4 = more than 2 times a week	1.81	.732
12. Frequency of pleasure reading in home country in native language 1 = none 2 = 1-3 times a month 3 = 1-2 times a week 4 = more than 2 times a week	2.89	.931
13. Frequency of current pleasure reading in native language 1 = none 2 = 1-3 times a month 3 = 1-2 times a week 4 = more than 2 times a week	2.21	1.08

For purposes of analysis, responses to questions 7, 8, and 9 were summed to form one variable. labelled "free reading," and 12 and 13 were combined to form the variable "read in L1."

Parametic statistics were applied to the data, assuming that any violations from interval equality were not large enough to distort the results (for discussion, see Kerlinger, 1976, pp. 402-403).

TABLE 2
Intercorrelations Among Variables

Item	1	2	3	4	5	6	7	8
TOEFL								
English Study/ Home	.367							
English Study/ US	.003	-.403**						
LOR/US	.232	-.343	.496**					
TV	-.133	-.099	.019	-.104				
Free Reading	.390*	.043	.018	-.070	-.115			
Books Read	.447**	.151	.423**	.021	-.216	.714**		
Bookstores/ Libraries	.084	.007	.423**	.220	-.216	.319*	.212	
Read in L1	-.174	-.159	-.294	-.049	-.259	.048	-.125	-.056

* $p < .05$
** $p < .01$

TABLE 3
Multiple Regression Analysis: Predictors of TOEFL Scores

Predictor	b	beta	t	p
Free Reading/Books	4.996	.41	3.42	.002
English Study/Home	6.738	.48	3.73	.001
LOR/US	.937	.42	3.24	.003

$r2 = .45$; adjusted $r2 = .41$
$F = 10.33$, $p < .001$

All three predictors made strong showings in the multiple regression analysis.

Discussion

English Study

In our analysis, years of study of English in the home country was a significant predictor. Gradman and Hanania (1991) also investigated this variable, but found no relationship to TOEFL performance. Their variable "months of intensive/special English" was significantly correlated with TOEFL scores, but correlations were modest (r = .26) and this variable did not survive their multivariate analysis. Previous research has shown a positive relationship between years of study and proficiency (Krashen, 1982). It seems reasonable to hypothesize, however, that study will affect performance only up to a certain level of proficiency, because of the limits of the classroom. Thus, it would not be surprising to see positive but weak and inconsistent correlations between years of study and TOEFL performance. Years of English study, however, did surprisingly well in the regression analysis, slightly outperforming the other predictors.

Length of Residence

LOR was only modestly correlated with TOEFL scores, but emerged as a substantial predictor in the multiple regression analysis. In the case of these subjects, LOR probably represented some academic experience in an English-speaking university, an important source of comprehensible input of academic language.

Free Reading in English

In Gradman and Hanania (1991), "extracurricular reading" was the strongest predictor of TOEFL scores, and free reading clearly had a very positive effect in Constantino's case history (Constantino, 1995). In this study, free reading also did well. It can be argued, however, that free reading is potentially a much stronger factor than our results indicate: Our subjects were clearly not pleasure readers, averaging fewer than 10 books read before taking the examination, and reporting reading for pleasure only three to six times per year!

We present below a separate analysis of responses to question 10 (Table 4). This analysis needs to be interpreted cautiously, because of the small number of subjects in some of the categories. Nevertheless, it suggests that free reading counts a great deal

TABLE 4
TOEFL Scores and Number of Books Read in English

Number of Books	Mean	s.d.	Number of Subjects
None	543.10	43.03	10
1-5 Books	555.15	42.88	20
6-10 Books	583.71	63.90	7
11-50 Books	605.33	18.58	3
Over 50 Books	613.00	47.62	3

Reading in the First Language

Reading in the L1 was not a predictor of TOEFL scores. There is evidence that reading competence in the first language is a predictor of reading ability in the second language in children (Cummins, 1989). Our results may be due to the fact that our subjects, all university students, were all good readers in their primary language; there was thus insufficient variability in the sample to show a relationship between L1 and L2 competence. This explanation may also help explain Janapolous' findings of no relationship between L1 reading and L2 writing (Janapolous, 1986).

Our results have both theoretical and practical implications. They provide additional support for the Reading Hypothesis (Krashen, 1993) as well as the more general Input Hypothesis (Krashen, 1985). In addition, they confirm that preparation for the TOEFL "doesn't have to hurt" (Constantino, 1995, p. 15).

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