Perceptual and Motor Skills, 1996, 83, 648-650. © Perceptual and Motor Skills 1996

FREE VOLUNTARY READING AND VOCABULARY KNOWLEDGE IN NATIVE SPEAKERS OF SPANISH[1]

VICTORIA RODRIGO
Department of Spanish
Louisiana State University

JEFF McQUILLAN AND STEPHEN KRASHEN
School of Education
University of Southern California

Summary.—Significant correlations were found between reported free reading and performance on a test of vocabulary knowledge in Spanish as a first language for 19 adults.

A number of studies have confirmed that free voluntary reading, or pleasure reading, is an important source of literacy development (6). While there is abundant evidence in English as a first and second language supporting this view, there is little research in other languages. Lee and Krashen (6) confirmed a relationship between pleasure reading and writing in Chinese while two others report evidence that vocabulary growth occurs with reading French (5) and Chinese (8). The goal of the present study was to confirm for Spanish whether those who read more show more development of literacy, assessed specifically as the relationship between free voluntary reading and vocabulary.

Method.—The 19 university students and clerical workers spoke Spanish as a first language. Subjects lived in a medium-sized city in central Mexico.

Two measures of free reading were given. The Author Recognition Test (11), a simple checklist method for measuring exposure to print, asks subjects whether they recognize the names of authors in a list. For speakers of English, scores on the Author Recognition Test correlate with measures of vocabulary (9, 10, 11), reading comprehension (3, 9), and spelling (4). Scores also correlated with measures of the amount of reading done, with observed reading behavior (11), and with the amount of leisure reading subjects reported (1, 9, 12). Lee and Krashen (6) reported a positive but modest relationship between test scores and writing in Chinese.

An Author Recognition Test was constructed using the names of 16 current Mexican novelists not likely to have been encountered in assigned school reading, and nine invented names. The reliability for this version of the Author Recognition Test was modest ($\alpha = .61$).

Subjects also completed a questionnaire about the amount of reading they did during adolescence and their current free reading habits. They indicated how many books they had at home. The vocabulary recognition test consisted of 16 real Spanish words, mixed with nine false words ($\alpha = .83$). Both the Author Recognition Test and vocabulary test scores were corrected for guessing, using the formula:

Proportion of Hits – Proportion of False Alarms = Adjusted Scores, as used by West and Stanovich (1991), where a "hit" = real author or word checked, and a "false alarm" = foil checked.

Results.—Table 1 presents descriptive data and intercorrelations among the variables. Clearly, not the presence of books at home, but reading is associated with literacy, but the presence of books may encourage reading (6) as illustrated. As expected, more books at home is related to more reading, which is related to scores on the vocabulary test. Interestingly,

[1]Address enquiries to S. Krashen, 23852 Pacific Coast Highway 919, Malibu, CA 90265.

Books in the Home	>	Free Reading	>	Vocabulary
	r		*r*	
	.58	Read in Adolescence	.46	
	.49	Read Currently	.35	
	.55	Author Recognition Test	.75	

scores on the Author Recognition Test were more strongly correlated with vocabulary scores than reported free voluntary reading.

TABLE 1
MEANS, STANDARD DEVIATIONS, AND CORRELATIONS ON MEASURES ($N = 19$)

Measure	*M*	*SD*	1	2	3	4	5
1. Vocabulary, %	54.11	30.71		.75[b]	.46[a]	.35	.73[b]
2. Author Recognition Test, %	20.94	15.65			.44[a]	.34	.55[b]
3. Reading Frequency (Teenage)	3.32	1.06				.65[b]	.58[b]
1 = Not at all							
5 = Always							
4. Reading Frequency (Current)	3.63	1.20					.49[a]
1 = Not at all							
5 = Frequent							
5. Books in the Home	4.21	.79					
1 = 0							
2 = 1–10							
3 = 11–25							
4 = 26–99							
5 = >99							

[a]$p < .05$. [b]$p < .01$ (one-tail).

The results of a simultaneous multiple regression analysis are presented in Table 2. Only scores on the Author Recognition Test survived as a significant predictor of vocabulary scores, a better predictor than free reading done in adolescence. In other words, when Author Recognition Test performance is held constant, free reading does not predict vocabulary scores, but when free reading is held constant, the Author Recognition Test remains a strong predictor. Multiple regression analyses using current free reading produced similar results.

TABLE 2
MULTIPLE REGRESSION ANALYSIS

Predictor	beta	*t*
Author Recognition Test	.674	3.73*
Reading/Teenage	.164	.907

*$p < .005$. $r^2 = .58$; Adjusted $r^2 = .53$; $F = 11.02$, $p < .001$.

In Table 3 correlations of scores on the Author Recognition Test with vocabulary and free reading for several studies shows present subjects' performance is very similar to previous results using English.

For native speakers of Spanish, measures of free reading and vocabulary were correlated, as previously observed for speakers of English. In addition, the Author Recognition Test seems

TABLE 3
CORRELATIONS FOR SCORES ON AUTHOR RECOGNITION TEST WITH VOCABULARY AND FREE VOLUNTARY READING

Study	Free Reading	Vocabulary
Rodrigo, *et al.*	.34/.44	.75
Allen, *et al.*	.52	
West, *et al.*		.62
Stanovich & West	.38	
Stanovich, *et al.* (Subjects' *M* age = 79.9)	.34	.50
Stanovich, *et al.* (Subjects' *M* age = 19.1)	.46	.63

useful in probing free reading as scores were positively correlated with subjects' reports of free voluntary reading, and magnitudes were similar to those previously reported for native speakers of English. The consistent performance on the Author Recognition Test suggests the test may measure what people read rather than how much.

REFERENCES

1. ALLEN, L., CIPIELEWSKI, J., & STANOVICH, K. (1992) Multiple indicators of children's reading habits and attitudes: construct validity and cognitive correlates. *Journal of Educational Psychology*, 84, 489-503.
2. ANDERSON, R., & FREEBODY, P. (1981) Vocabulary knowledge. In J. Guthrie (Ed.), *Comprehension and teaching: research reviews.* Newark, DE: International Reading Association. Pp. 77-117.
3. CIPIELEWSKI, J., & STANOVICH, K. (1992) Predicting growth in reading ability from children's exposure to print. *Journal of Experimental Child Psychology*, 54, 74-89.
4. CUNNINGHAM, A., & STANOVICH, K. (1990) Assessing print exposure and orthographic processing skill in children: a quick measure of reading experience. *Journal of Educational Psychology*, 82, 733-740.
5. DUPUY, B., & KRASHEN, S. (1993) Incidental vocabulary acquisition in French as a foreign language. *Applied Language Learning*, 4, 55-63.
6. KRASHEN, S. (1993) *The power of reading.* Englewood, CO: Libraries Unlimited.
7. LEE, S. Y., & KRASHEN, S. (1996) Free voluntary reading and writing competence in Taiwanese high school students. *Perceptual and Motor Skills*, 83, 687-690.
8. SHU, H., ANDERSON, R., & ZHANG, H. (1995) Incidental learning of word meanings while reading: a Chinese and American cross-cultural study. *Reading Research Quarterly*, 30, 76-95.
9. STANOVICH, K., & WEST, R. (1989) Exposure to print and orthographic processing. *Reading Research Quarterly*, 24, 402-433.
10. STANOVICH, K., WEST, R., & HARRISON, M. (1995) Knowledge growth and maintenance across the life span: the role of print exposure. *Psychological Science*, 2, 325-330.
11. WEST, R., & STANOVICH, K. (1991) The incidental acquisition of information from reading. *Psychological Science*, 2, 325-330.
12. WEST, R., STANOVICH, K., & MITCHELL, H. (1993) Reading in the real world and its correlates. *Reading Research Quarterly*, 28, 35-50.

Accepted August 16, 1996.