

PRELIMINARY DEVELOPMENT OF A SCREENING  
INSTRUMENT FOR LEARNING DISABILITIES IN  
FOREIGN LANGUAGE CLASSES

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An increasing number of college students are requesting special services because of diagnosed learning disabilities. Institutions are attempting to adjust to the needs of the handicapped. The department of Classical and Modern Foreign Languages at Furman University has recognized the need for documentation regarding the identification of learning disabled students.

The Classical and Modern Foreign Language Department refers students to the Special Service Program for further screening. Students are referred who have high SAT verbal scores, no attendance problems, and no apparent emotional, social, intellectual, or obvious experiential reasons for failing to achieve. The Office of Special Services generally gives tests for intelligence, visual acuity, auditory acuity, silent reading, oral reading, reading words out of context, spelling, and various perceptual tests. If a student is classified as learning disabled, she/he files a formal appeal to take an alternate sequence of courses focusing on the culture of another country, as opposed to the three required courses in language involving listening, speaking, reading, and writing proficiency in that language.

The faculty Appeals Committee requested that a perceptual instrument be developed with norms based on the perceptual achievement of other Furman students. This committee also requested data as to the number of students learning disabled at the institution. This request led to the work reported in this paper.

Barrett (1965), Vernon (1973), and Durrell (1963) have well documented the need for accurate perception of letters and words in reading achievement. Karlin (1980) concluded that the ability to discriminate among letter and word forms has a greater influence on recognizing words than the ability to discriminate among nonverbal forms.

Dykstra (1966), Durrell and Murphy (1953), and Morency (1968) have also demonstrated the high correlation between auditory discrimination abilities and reading achievement. Durrell and Murphy (1953) have maintained that hearing sounds in spoken words is crucial to reading achievement. The question remains, however, about the role of perception in a college foreign language class. Pimsleur (1966) demonstrated that the ability to use letter-sound association was significantly related to foreign language achievement.

The purpose of this study was to determine whether or not the visual and auditory perceptual skills as measured by a short screening instrument were significantly related to foreign language achievement at the college level. Since Section 504 of the Vocation Rehabilitation Act protects those students in higher education with perceptual problems, this research seemed long overdue.

METHOD AND SUBJECTS

The short screening test had two subtests, visual and

auditory. The visual test of twenty items had students study nonsense words of increasing length for three seconds, and then write from memory what they had seen. The nonsense words were similar to English words, and contained some of the syllable sequences that seem to be troublesome for learning disabled students. The nonsense words were shown on standard typing paper, 8½ x 11 inches. The tallest letters were two inches high.

The auditory subtest of twenty items required students to pronounce phonetically and silently a nonsense word, and to underline an English word with the same vowel sound. Most distractors were phonetically irregular to measure the students' use of auditory discrimination. The student could not determine the vowel sounds, and successfully match them, using the visual patterns alone. Students were given three and one-half minutes to finish the auditory subtest. The two subtests were combined to give a total score.

Eighteen classes of Classical and Modern Foreign Languages at Furman University participated in the study. One class of 26 Spanish students at a nearby college also participated. At Furman, 110 students participated in Latin, 115 in Spanish, 75 in German, and 103 in French. Fourteen different professors participated. Each professor administered the short screening test during the first week of class in the Fall term. At the conclusion of the Fall term, each professor provided numerical grades to serve as the dependent variable. A standard interval-ratio grading system was used by the professors.

Several other independent variables were correlated to the criterion and compared with the short screening test for strength of correlation. These included SAT verbal, math, and total scores, predicted grade-point average, foreign language placement scores, and length of time students had studied a foreign language before coming to college.

RESULTS

In Latin, the Pearson correlation between the two screening test and grades was significant,  $r(108) = .27, p = .002$ . The only other independent variable correlating significantly with grades was predicted grade-point average,  $r(108) = .19, p < .01$ . Table 1 gives the means, standard deviations for the screening test, and correlations between the independent variables and grades in Latin classes.

TABLE 1  
CORRELATION BETWEEN SELECTED VARIABLES  
AND LATIN GRADES N = 110

Independent variables	Mean	Standard deviation	Pearson product-moment correlation
Cloer test - visual	15.87	4.9	.27
Cloer test - auditory	12.13	5.36	.25
Cloer test - total	27.79	9.6	.27
SAT verbal	376.36		*
SAT math	411.0		*
PGPA	1.64		.19

\*No significant correlation

In Spanish, the correlation between the total screening test and grades was significant,  $r(113) = .31, p < .001$ . None of the other independent variables correlated as highly. Years studying a foreign language prior to college yielded the next highest correlation,  $r(113) = .21, p .01$ . Table 2 gives the means, standard deviations for the screening test, and correlations between the independent variables and grades in Spanish classes.

TABLE 2

CORRELATION BETWEEN SELECTED VARIABLES  
AND SPANISH GRADES N = 115

Independent variables	Mean	Standard deviation	Pearson product-moment correlation	
Cloer test - visual	15.61	5.2	.25	$p = .004$
Cloer test - auditory	14.09	5.5	.34	$p = .001$
Cloer test - total	26.69	10.27	.31	$p = .001$
SAT verbal	439.82		*	
SAT math	468.95		.20	$p = .01$
SAT total	908.7		.16	$p = .04$
PGPA	2.07		.16	$p = .01$
Placement test	16.30		.20	$p = .01$
Years studying (prior to Furman)	7 months		.21	$p = .01$

\*No significant correlation

In German classes, the correlation between the auditory subtest and grades was significant,  $r(73) = .36, p < .001$ . None of the other independent variables correlated significantly with grades. The correlation between the visual subtest of the screening instrument and grades was not significant. Table 3 gives the means, standard deviations for the screening test, and correlations between the independent variables and grades in German classes.

TABLE 3

CORRELATION BETWEEN SELECTED VARIABLES  
AND GERMAN GRADES N = 75

Independent variables	Mean	Standard deviation	Pearson product-moment correlation	
Cloer test - visual	16.60	4.99	*	
Cloer test - auditory	13.53	5.80	.36	$p = .001$
Cloer test - total	30.13	10.08	.22	$p = .02$
SAT verbal	473.73		*	
SAT math	514.80		*	
SAT total	988.53		*	
PGPA	2.216		*	
Placement test	16.72		*	
Years studying (prior to Furman)	7 months		*	

\*No significant correlation

In French classes, the correlation between the visual subtest and grades was significant,  $r(101) = .22, p < .01$ . The auditory subtest did not correlate significantly with grades. The SAT Total correlated significantly with grades, but only slightly higher than the visual subtest,  $r(101) = .26, p = .004$ . Table 4 gives the means, standard deviations for the screening test, and correlations between the independent variables and grades in French classes.

TABLE 4

CORRELATION BETWEEN SELECTED VARIABLES  
AND FRENCH GRADES N = 103

Independent variables	Mean	Standard deviation	Pearson product-moment correlation	
Cloer test - visual	17.23	4.33	.22	$p = .01$
Cloer test - auditory	13.69	6.04	*	
Cloer test - total	29.95	11.14	*	
SAT verbal	433.30		.24	$p = .006$
SAT math	458.34		.26	$p = .004$
SAT total	891.35		.26	$p = .004$
PGPA	2.11		.25	$p = .005$
Placement test	17.99		*	
Years studying (prior to Furman)	9 mos.		*	

\*No significant correlation

In the Spanish class at another college, the correlation between the total score on the screening test and grades was significant,  $r(24) = .54, p = .002$ . Table 5 gives the means, standard deviations, and correlations between the screening tests and grades in Spanish at another college.

TABLE 5

CORRELATION BETWEEN CLOER TEST AND SPANISH  
ACHIEVEMENT AT ANOTHER COLLEGE N = 26

Independent variables	Mean	Standard deviation	Pearson product-moment correlation	
Cloer test - visual	16.69	2.77	.63	$p = .001$
Cloer test - auditory	12.50	4.15	.36	$p = .04$
Cloer test - total	29.19	5.75	.54	$p = .002$

Spearman-Brown reliability coefficients for the visual subtest, auditory subtest, and total test were .81, .84, and .87 respectively.

## DISCUSSION

With the results summarized according to the different languages, the results indicate that with a slight exception in French, the screening instrument correlated more highly with

grades in language achievement than any of the other independent variables. The first question addressed by this study was whether or not this screening instrument was related to language achievement. The answer seems to be affirmative.

Another question that this study attempted to answer concerned the number of students at the institution who might be classified as learning disabled. If one looks at two standard deviations below average as the criterion, or a point at which the bottom two percent of the Furman population might score, four students qualified. Of the four students scoring two standard deviations below average, three received low D's; the fourth student failed.

Thirteen students scored one standard deviation below average on the visual subtest. The most frequent grade received by this group was "D." Thirty subjects scored one standard deviation below average on the auditory subtest. The majority of these students dropped, failed, or received a grade of "D." Thirteen subjects scored one standard deviation below average on the total test. Eight of these received grades of "D" and "F."

It is no surprise that only a small percentage of the variance in language achievement is accounted for by a very brief screening of perception. There are so many experiential, social, emotional, physical, intellectual, and motivational variables that contribute to the variance in a college foreign language class. What is significant is that the measurement of perception accounts for some of that variance. The short screening instrument shows promise of identifying cases that might have severe perceptual problems. A word of caution is needed concerning this instrument or any other test designed to predict a certain criterion. Probably no test in isolation identifies a learning disability. This instrument does show some potential as one piece of evidence to consider. This writer certainly hopes that colleagues in the Forum will do further research with the instrument at their institutions.

#### REFERENCES

- Barrett, T.C. The relationships between measures of pre-reading visual discrimination and first grade reading achievement: A review of the literature. *Reading Research Quarterly*, 1965, 1, 51-76.
- Durrell, D.D., and Murphy, H.A. The auditory discrimination factor in reading readiness and reading disability. *Education*, 1953, 73, 556-560.
- Durrell, D.D., and Murphy, H.A. Reading readiness. *Journal of Education*, 1963, 146, 3-10.
- Dykstra, R. Auditory discrimination abilities and beginning reading achievement. *Reading Research Quarterly*, 1966, 1, 5-34.
- Karlin, R. *Teaching elementary reading* (3rd ed.). New York: Harcourt Brace Jovanovich, 1980.
- Morency, A. Auditory modality, research, and practice. In H.K. Smith (Ed.), *Perception and Reading* (Volume 12). Newark, Delaware: International Reading Association, 1968.
- Pimsleur, P. *Pimsleur language aptitude battery*. New York: Harcourt, Brace and World, Inc., 1966.
- Vernon, M.D. *Visual perception and its relationship to reading: An annotated bibliography*. Newark, Delaware: International Reading Association, 1973.