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COMPETENCY MODEL FOR PRESERVICE TEACHERS IN A BASIC SKILLS COURSE

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A theoretical competency based model was established in this study incorporating academic achievement, aptitude, and attitudinal variables related to performance on criterion-referenced tests in reading. The model utilized the predictor variables for performance on criterion-referenced tests. The predictor variables consisted of high school grade point average, ACT composite score, vocabulary score, reading comprehension score, major, and attitude toward reading. A review of the literature indicated a lack of studies dealing with the utilization of predictor variables for preservice teacher reading competency models in a basic skills course in the teaching of reading.

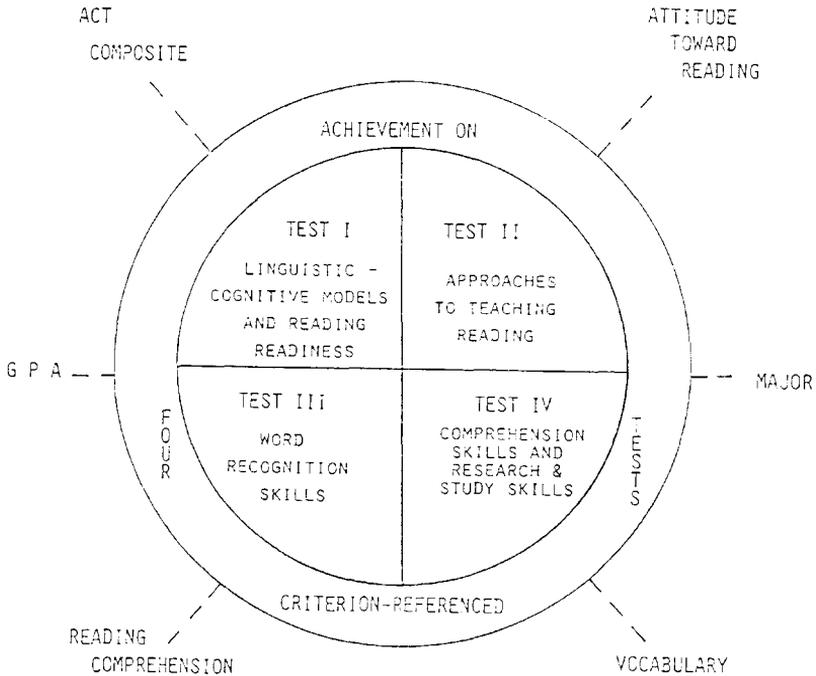
Specific features of the theoretical competency based model include cognitive learning through instruction as measured by performance on four criterion-referenced tests in the basic course mentioned. The four criterion-referenced tests operating as assessment instruments in the teaching of reading concentrate on the theoretical criteria of linguistic-cognitive models, reading readiness, approaches to the teaching of reading, word recognition skills, comprehension skills, and research and study skills (Artley 1978; Burns & Roe, 1980). These four tests for measuring performance and the six selected predictor variables are represented graphically (Eckert, 1983), on the following page.

The predictor model serves as a primary means of educational evaluation of foundation courses. Educational evaluation for program planning and counseling requires the accurate assessment of student achievement, aptitude, and attitude (Wallace & Larsen, 1979). This model was developed for counseling preservice teachers and altering foundation courses to meet the individual needs of a heterogeneous collegiate student body.

METHODS

The subjects for this study were 61 prospective teachers who were majoring in elementary and special education. These subjects registered for and completed the basic skills course in the teaching of reading at a land-grant university in Mississippi in the spring and fall semesters of 1982. It was anticipated that all subjects would be elementary and special education majors. However, seven of the 61 subjects had other majors.

COMPETENCY MODEL FOR PRESERVICE TEACHERS'
PERFORMANCE IN A BASIC SKILLS COURSE IN TEACHING READING



The research design was a correlative and descriptive *ex post facto* study. The variables selected were each subject's high school GPA, composite score on the ACT, attitude toward reading as measured by the five subscales of the Rhody Secondary Reading Attitude Assessment, declared major (elementary and special education), vocabulary score and reading comprehension score as measured by The Nelson-Denny Reading Test, Form C (1973), and score achieved independently and summatively on each of the four criterion-referenced reading tests.

The statistical techniques utilized were the Pearson product-moment correlation coefficient and analysis of variance. A one-tailed test was used for finding the simple correlations among the selected variables of high school grade point average, ACT composite score, attitude toward reading, vocabulary score, and reading comprehension score with achievement scores from individual and total scores on the four criterion-referenced tests. Major

was tested using a two-tailed test due to the lack of evidence for a positive correlation in the literature. A relationship was considered significant at the .05 level.

RESULTS

Table 1 displays the simple correlation coefficients between all independent variables paired with each dependent variable. Significant correlations with Test I were ACT composite score ($r=.57$), vocabulary score ($r=.52$), high school grade point average ($r=.50$), comprehension score ($r=.40$), and major ($r=.31$). The significant correlations with Test II were ACT composite score ($r=.64$), vocabulary score ($r=.58$), high school grade point average ($r=.54$), comprehension score ($r=.54$), major ($r=.37$), and attitude toward general reading ($r=.24$). The significant correlations with Test III were ACT composite score ($r=.59$), vocabulary score ($r=.53$), high school grade point average ($r=.47$), comprehension score ($r=.42$), major ($r=-.28$), and attitude toward reading in the library ($r=-.25$). The significant correlations with Test IV were ACT composite score ($r=.58$), high school grade point average ($r=.49$), comprehension score ($r=.36$), major ($r=-.26$), and attitude toward reading in the library ($r=-.21$). The significant correlations with the Total Score were ACT Composite score ($r=.66$), vocabulary score ($r=.60$), high school grade point average ($r=.56$), comprehension score ($r=.48$), and major ($r=-.34$). ACT composite score, vocabulary score, high school grade point average, comprehension score, and major consistently were significant with the dependent variables. From Table 2 it can be concluded that the negative relationship between major and achievement found on Table 1 was a result of the high coding for elementary majors who consistently had the lowest mean scores (\bar{X}) for achievement on all five test scores in a basic skills course in the teaching of reading. Other majors achieved higher mean scores on four of the five test scores. The highest mean score on Test IV was made by special education majors. The Scheffe test, however, revealed that the only statistically significant difference between mean scores was on Test II in which elementary majors had a lower mean score than other majors. The significant correlation of these predictor variables with the dependent variables indicated that these variables may be important when investigating the models for the prediction of performance on each dependent variable. (Tables 1 and 2 on following page.)

CONCLUSIONS

As concluded through analysis of the data, significant correlations existed among achievement on individual and total scores from the four criterion-referenced tests in a basic skills course in the teaching of reading for preservice teachers with the predictor variables of ACT composite score, vocabulary score, high school grade point average, and comprehension score. A significant negative correlation existed between achievement on criterion-reference tests and the predictor variables of major and attitudes toward reading in the library and general reading.

Major was a predictor variable that was significant in the general correlation and the literature (Barter, 1974). A negative

Table 1
Results of Pearson Product-Moment Correlation (r)
Relating Predictor Variables to Achievement Associated
with Understanding of a Basic Skills Course in the
Teaching of Reading

Predictor Variables	Mean	Standard Deviation	Correlation Coefficient (r)				
			Test I	Test II	Test III	Test IV	Total Score
High School GPA	2.95	.55	.50**	.54**	.47**	.49**	.56**
ACT Composite Score	15.48	5.35	.57**	.64**	.59**	.58**	.66**
Major	NA	NA	-.31**	-.37**	-.28**	-.26**	-.24**
Attitude/School Related Reading	6.75	2.28	-.03	.16	.06	.09	.07
Attitude/Reading in the Library	6.46	2.27	-.17	-.04	-.25*	-.21*	-.19
Attitude/Reading in the Home	6.52	2.43	-.08	.16	.08	-.02	.04
Attitude/Other Rec. Reading	18.20	3.61	-.02	.14	.08	.07	.07
Attitude/General Reading	50.57	10.30	.01	.24*	.06	.13	.12
Vocabulary Score	27.70	14.60	.52**	.58**	.53**	.50**	.60**
Comprehension Score	17.87	5.58	.40**	.54**	.42**	.36**	.48**

* Significant at .05 level ** Significant at .01 level

Table 2
Means (X) and Standard Deviations (S.D.) for
Elementary, Special Education, and Other
Majors on Five Achievement Scores

Achievement Test Scores	Elementary (E)			Special Education (SE)			Other (O)		
	N	\bar{X}	S.D.	N	\bar{X}	S.D.	N	\bar{X}	S.D.
Test I	48	63.23	6.73	6	67.17	6.74	7	69.29	5.85
Test II*	48	76.56	7.49	6	82.00	8.69	7	84.71	5.65
Test III	48	75.77	10.17	6	81.33	9.46	7	83.43	7.93
Test IV	48	76.58	8.31	6	83.67	6.12	7	80.57	8.28
Total Score	48	307.95	30.27	6	330.96	30.41	7	335.32	27.21

* Significant differences at .05 level (O > E).

relationship existed, however, because the vast number of elementary majors consistently have the lowest scores in achievement and the highest code number among three classifications of majors (48 elementary majors, 6 special education majors, and 7 other majors).

A review of these variables implied a theoretical competency model for achievement on criterion-referenced tests in a basic skills course in the teaching of reading. From this theoretical model and study, additional research should be generated in order to develop prediction equations for achievement in the course mentioned.

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