

COMMISSION FOR TEACHER PREPARATION AND LICENSING

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TO: Deans of Education

FROM: Peter L. LoPresti, Executive Secretary *PL*

SUBJECT: Validity Study of the National Teacher Examination,
Educational Administration and Supervision

As you are aware, during the past year the Commission has conducted a number of validity studies of those examinations taken most frequently by California credential applicants. Just recently, the Commission completed probably the most significant one of all, the one on the National Teacher Examination, Educational Administration and Supervision.

Over 52 public school administrators and professors of educational administration participated in the study. The Commission approved the final report at its April meeting. Because of the significance of the findings for institutions of higher education that have approved Educational Administration Programs, the Commission requested that a summary of the report be sent to each of these institutions.

A full report is available upon request at cost, \$1.50 per copy. If you wish a full report, send your request along with your check, made payable to the Commission for Teacher Preparation and Licensing to Marjorie Brodt. If you have any questions about your order or the study, please call Mrs. Brodt at (916) 322-2304 or ATSS 8-322-2304.

Enclosure

cc: Chairman, Department of
Educational Administration

SUMMARY OF VALIDITY STUDY
FOR
NATIONAL TEACHER EXAMINATION,
EDUCATIONAL ADMINISTRATION & SUPERVISION

This study was conducted on behalf of the California Commission for Teacher Preparation and Licensing by Educational Evaluation and Research, Inc. (E.E.R.I.) and was based on a standardized model developed by Educational Testing Service (E.T.S.) and used by them in other studies of the National Teacher Examination in California as well as in other states throughout the nation.

PURPOSE

The purpose of this standardized study was to investigate whether there exists a rational basis for the use of the National Teacher Examination, Educational Administration and Supervision for certification purposes in the State of California, consistent with applicable legal standards. Within this general framework are two specific goals: (1) to assess the appropriateness of the examination as measures of the knowledge required as a qualification to be an administrator in the state, and (2) to develop information that the Commission can consider in establishing rational rules for evaluating the N.T.E. scores of applicants for certification as administrators.

The design of the study requires that the judgements of educators within the state be combined into a "statewide standard" as to content appropriateness and minimum score.

Two types of panels were used in this study. Content Review Panels evaluated the content of the tests in relation to the content of appropriate college programs and in relation to the Commission-adopted Scope and Content Statements. Knowledge Estimation Panels estimated the percentages of minimally-knowledgeable students who would know the answers to individual questions and estimated the number of questions out of each major category listed in E.T.S. specifications that a minimally-qualified applicant should be able to answer correctly. Each panel had 12-14 members selected by C.T.P.L. staff following a stratified random sampling procedure recommended by E.T.S.

I. CONTENT REVIEW STUDY

A. Method

Panel members were asked to (1) examine individual test questions and judge whether the content of each question is normally taught in one or more of the courses that are part of an educational administration program, and (2) examine the test content topics that were used in developing each edition of the test and ascertain whether the curriculum areas covered by the test are congruent with the curriculum areas covered by the educational administration program at their institutions or at other California institutions which they were familiar.

I. CONTENT REVIEW STUDY (Continued)

B. Results

The results of the Content Review Panel are presented under four headings, relative emphasis in the tests and curriculum, topics in the curriculum not included among the test content topics, similarity between tests and the curriculum, and content appropriateness of the questions. The indices and the standards for special review were established by E.T.S.

1. When comparing relative emphasis on major content topics, the index of comparison ranges from 0-100. Low values represent a high degree of correspondence between relative emphasis in test and curriculum. The index of difference in relative emphasis for the Educational Administration and Supervision Examination was high - 36. If more than 39, emphasis within major topics needs special reviews.

2. To study the overall comprehensiveness of the test, judges were asked to list topics in their college programs not covered by the test. Twenty three topics were listed as being in Educational Administration programs and not being covered by the examination, however, only seven topics were noted by more than one judge. To be significant, an area must be listed by more than one judge.

3. When judging overall similarity between the test and college programs, a test would be considered appropriate when more than half the judges rated the test as very closely parallel or some differences but not appreciable. Using this standard, the Educational Administration and Supervision Examination was considered inappropriate since over half the judges (8 out of 12) rated the test as having appreciable differences between the content topics and the curriculum of their own institutions.

4. When asked if at least 90% of their students had an opportunity to learn the answer to a particular question, 88% of the questions in the Educational Administration and Supervision Examinations studied were judged content appropriate for students who have followed standard college programs. If less than 90%, the content appropriateness of the questions needs special review.

Evaluation of These Results

Conclusions about the Correspondence between the Content of the Educational Administration and Supervision Examination and College Program Content:

Examination	Degree of Correspondence				
	Very Closely Related	Reasonably Related	Probably Related	Not Related	
Educational Administration & Supervision					X

Evaluation of These Results (Continued)

The results for the individual components of the Area Tests are described below:

Educational Administration and Supervision curriculum is Probably Related to the examination. The judges found 88% of the questions content appropriate. If less than 90%, the content appropriateness needs special review. Twenty-three topics in the curriculum were listed as not being included in the examination, however, only seven were significant since it was listed by more than one judge. Eight of the 12 judges who responded to the question about overall similarity said that the test curriculum was appreciably different from college curriculum.

The relative emphasis in major content topics in the test and the curriculum appears to be generally similar; the index of difference was 36 and is high. However, to be given special consideration, the index should be more than 39.

By E.T.S. standards, this overall index of difference in relative emphasis was considered adequate. However, when reviewing the individual topics indicated on Table 2 of the full report, four of the 12 areas, Business and Fiscal Matters; Organizational Structures, Programs, and Services Within the School; Individual and Group Behavior and Dynamics; and School-Community Relations have significant differences in content emphasis.

II. KNOWLEDGE ESTIMATION STUDY

A. Method

Judges were asked to estimate the percentage of a group of minimally-qualified candidates who would know the answer to each test question. The panel was informed that these candidates had the minimum amount of knowledge necessary to complete the academic program, or had the minimum amount of knowledge necessary to work effectively as educational administrators.

B. Results

Individual questions were analyzed and results of analyses were summarized. The average scaled score as determined by these panel judgements was 716 and appears in column one. Translating this score into present standards, one finds:

Test	Col- umn 1	1977-78		Present		Stand. Error of Measure.
		Norms	Calif. % Equiv.	Commission Score Stand.	Norms	
Educational Admini- stration and Super- vision		% Equiv				
	716	68	75	673	43	28
				680	47	

B. Results (Continued)

The standard error of measurement can be used to judge the range of a score theoretically achieved by any person taking the test. There are 68 chances out of 100 that the examinee's observed score will be within one standard error of measurement of the true score. Ninety-five chances that the score will be within two standard errors of measurement. Translating this to the findings of the judges for the test studied:

Test	Average Scaled Scores Determined By Judges	S.E. Meas.	*Score Estimates Adjusted By Applying + or - One Standard Error of Measurement
Educational Administration and Supervision	716	28	688-744

*Theoretical Range of Scores for 68 out of 100 students when Observed Score is Average Scaled Score.

III. STANDARD SETTING STUDY

A. Method

Qualified professionals were asked to determine the number of questions on the Educational Administration and Supervision test that minimally-qualified applicants should be able to answer correctly. The questions in the tests studied were grouped into the major categories in the E.T.S. test specifications, and the task of these panelists was to estimate the number of questions from each group that a minimally-qualified applicant should be able to answer correctly. Panelists were asked to think of a hypothetical person with minimum knowledge to complete the educational administration program and work effectively as a beginning administrator.

B. Results

Panel Estimates

The average number of questions in each category of a test and the average number of the total questions judged that should be correctly answered is reported in Table 10. In all tests the data suggests that a minimally-qualified applicant should answer correctly about 78% of the questions. In addition, the variance between number of questions that should be answered in subtests is very limited, ranging from 73-82% which is only a 9% difference.

Converting the raw scores based on judgements of total panels, the unadjusted and adjusted Scaled Score Estimates were 827 and 789, respectively. See Column 1 below. Translating this into present standards, one finds:

Test	Col. 1	77-78 Calif. % Norms Equiv.	Present Comm. Score Stand.	Norms	Stand. Error Meas.
Educational Administration and Supervision		% Equiv		% Equiv	
Unadjusted	827	99	99+	673	43 28
Adjusted	789	94	99		

IV. SCOPE AND CONTENT REVIEW STUDY

A. Method

Members of the panel were asked to ascertain the extent to which selected portions of the N.T.E. Examinations satisfy the test specifications implied by the C.T.P.L. adopted Scope and Content Statements which are outlines of minimum knowledge and competencies to be achieved by educational administration candidates. Judges were to place each question within one or more categories of the structure provided by the Scope and Content Statement or to indicate that the question did not fit within that structure. They were to determine the extent to which specific topics in the Scope and Content Statement were represented by questions in the test. They were also to determine the degree of correspondence between the relative coverage of various topics specified in the Scope and Content Statement and the judged content distribution in the test.

B. Results

Fit of Question Content

A question was defined to fit a Scope and Content Statement if more than half the judges who classified the question placed it in one or more of the topical categories. In the Educational Administration and Supervision Examination, an average on both forms of 99.7% of the questions were judged to fit the Educational Administrative Services Scope and Content Statement.

Test Representation of Specific Topics

If at least half the judges placed no questions in a category for a topic, the topic was considered to be unrepresented in the test. All topics were represented in both test editions. (As reported in Table 15).

The degree of correspondence between relative coverage of main topics in Scope and Content Statement and test content distribution - the variance between percentage of test content covered by Scope and Content categories and the test ranged from 3-8%. The test devotes more attention to Topic II, Leadership

and Management (3%) and Topic III, Curriculum and Instruction (6.6%) and less to Topic I, Human Relations (7.5%) and Topic IV, Governance, Legislation and Court Decisions (6.3%).

B. Results (Continued)

Estimated Test Score Means Using Questions Judged to Fit Scope and Content Statement

Minimal test scores were estimated by using the data from the Knowledge Estimation Panels, and using only those items that were judged to fit the Scope and Content Statement. This average scaled score was 769.

A comparison of the results from each of the studies follows:

SUMMARY OF DATA FROM KNOWLEDGE ESTIMATION AND STANDARD SETTING PANELS

	Educational Administration and Supervision		
	Score	ETS Norm %ile	1977-78 Calif. %ile Equiv.
Median 50%	685	50	60
CTPL Standard	673	43	50
KEP Cur College	716	68	75
KEP Scope & Content	769	89	96
SSP Adjusted	789	94	99
SE Meas	19		

The data indicates that the National Median is above our present score standard and that both of these scores are far below the recommended standards set by the Knowledge Estimation Panels.