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## ABSTRACT

The Georgia Teacher Certification Testing Program includes 28 criterion-referenced tests designed by National Evaluation Systems, Inc. (Amherst, Massachusetts) and covering 28 different teaching, leadership, and service fields. This publication offers an overview of the test development process, test validation procedures, test administration policies and procedures, and an indication of the benefits realized by examinees, teacher education institutions, and the State. An overview of the testing program presents information on the scope of the testing program as well as its legal validation. Sections include information on: (1) the test development process; (2) avoidance of test bias; (3) retake analysis and test reliability; (4) test administration; and (5) support to examinees. (JD)

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*A Standard of Quality*

# The Georgia Teacher Certification Testing Program

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## **PREFACE**

In this document, the Georgia Department of Education (GDE) and National Evaluation Systems, Inc. (NES) communicate general information about the Georgia Teacher Certification Testing Program to interested parties. The publication offers an overview of the test development process, test validation procedures, and test administration policies and procedures and an indication of the benefits realized by examinees, teacher education institutions, and the State.

The document does not provide technical details on the many aspects of test development and administration. The reader is referred to the various publications mentioned in this document including the current year's Registration Bulletin, Study Guides, and Question and Answer Brochure, which can be obtained from the Georgia Department of Education. Questions should be addressed to the Director, Teacher Assessment, Georgia Department of Education, 1858 Twin Towers East, Atlanta, GA 30334, (404) 656-2556.

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# **A STANDARD OF QUALITY**

## **THE GEORGIA TEACHER CERTIFICATION TESTING PROGRAM**

**Teacher Assessment Unit  
Division of Staff Development  
Office of Planning and Development  
Georgia Department of Education  
Atlanta, Georgia**

**Charles McDaniel  
State Superintendent of Schools**

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## READER'S SUMMARY

The Georgia Department of Education (GDE) contracted with National Evaluation Systems, Inc. (NES) of Amherst, Massachusetts, to design and develop twenty-eight separate tests for Georgia's Teacher Certification Testing Program. These tests and their administration procedures meet the highest professional standards in all respects. Since program inception, they have been subject to intense review from both legal and technical standpoints and have won the respect of educators both in and outside the State. Georgia's program was the first customized, criterion-referenced teacher certification testing program in the United States and continues to be a model for programs in other states.

The Georgia Teacher Certification Testing Program is substantial in scope. There are twenty-eight tests in each of twenty-eight different teaching, leadership, and service fields. These include more than 8,000 test questions written by NES and reviewed by hundreds of Georgia educators. Thousands of practicing Georgia teachers provided information about their actual classroom responsibilities to support the development of job-related tests. In addition, over one thousand Georgia educators, including classroom teachers and members of school of education faculties, worked with NES to prepare test content, review test questions, independently validate the test content, and provide recommendations for passing scores.

### Program Benefits

The program designed and implemented by the GDE and NES provides the State of Georgia with a number of benefits. Some of these benefits are:

- **Georgia Control of Education Standards, Policies, and Requirements.** State curriculum standards and classroom textbooks were the foundation of test content, and Georgia educators were active throughout the entire development process. The GDE determines all policies related to test development and administration.
- **Equity to Examinees.** Equity to all examinees was and remains a critical guiding principle of the program. The tests are unbiased in content. They measure only that content knowledge that teachers themselves judge to be essential aspects of classroom teaching. The passing scores were set in accordance with established professional techniques and applicable legal standards.
- **Support for Candidates and Teacher Training Institutions.** The program includes many components in addition to the tests themselves. It offers extensive diagnostic score reporting and other information (e.g., Study Guides and Low Objectives Report) to candidates and teacher education institutions, both before and after testing.

- **Legal Validation.** All procedures and processes associated with the Georgia program were designed specifically to be legally valid. They are in strict compliance with all requirements set forth in the test validation guidelines of the Federal Equal Employment Opportunity Commission, the American Psychological Association, and all applicable court precedents.

### Test Development Process

The test development process incorporates rigorous steps to assure the quality of the materials. These include:

1. **Policy review.** Review of all relevant Georgia instructional policies and documents, including textbooks and state curricula.
2. **Topic outlines.** Creation of initial content outlines for each content area.
3. **Outline review.** Advisory Committee review and revision of content outlines. The separate Committees for each field included both classroom teachers and teacher education faculty.
4. **Objectives.** Creation of objectives based on the approved content outlines.
5. **Objectives review.** Advisory Committee review and revision of the objectives in each field.
6. **Job analysis surveys.** Extensive job analysis surveys completed by thousands of Georgia classroom teachers, rating the importance of each proposed objective in their individual teaching fields.
7. **Objective approval.** Review of the job analysis results in each content area and approval of objectives to be tested by Advisory Committees with the participation of the Department's curriculum consultants.
8. **Test questions.** Development of a bank of test questions, validated for each field and based on the approved objectives.
9. **Question review.** Review and revision of the test questions by the Advisory Committees.
10. **Field test.** Field testing of all test questions.
11. **Content validation.** Validation of the questions by a second group of content experts (Georgia classroom teachers and teacher educators).
12. **Recommend passing scores.** Recommendations for passing scores for each test by Georgia classroom teachers and teacher educators.
13. **Review test results.** An intensive review of test results and item statistics for potential bias.
14. **Set passing scores.** Determination of final passing scores.

## Test Administration

The GDE and NES administer the tests within a policy framework that provides each examinee a convenient and standardized test environment, while ensuring the security of the test materials. Moreover, the score reports provide detailed diagnostic information to candidates, the institutions that trained them, and the Department of Education.

From the point of initial registration to receipt of score reports, NES treats all examinees with courtesy and professionalism. Questions and requests are answered promptly.

## Summary

The Teacher Certification Testing Program is part of the fabric of educational improvement in Georgia. It reflects the concerns of Georgia educators and the essential content knowledge in the teaching field. All materials and procedures are legally valid and designed to be strictly unbiased. The policies of the testing program are Georgia policies. It is one of the most carefully validated licensing examinations ever to have been given in the United States.

## OVERVIEW

The tests for the Georgia Teacher Certification Testing Program meet the highest professional and legal standards. Multiple reviews by both National Evaluation Systems, several committees of Georgia educators, and GDE curriculum consultants addressed the critical issues of job-relatedness and avoidance of bias. Every test objective and question has been related directly and empirically to actual instructional requirements in Georgia classrooms.

## Scope of the Testing Program

The Georgia Teacher Certification Testing Program assists the Department of Education in identifying those candidates for certification who have attained the minimum standards of knowledge and competence required to perform satisfactorily in their teaching fields in Georgia classrooms. The tests are criterion-referenced; that is, they measure a candidate's knowledge and skills in relation to an established standard of competence (criterion). Committees of Georgia content experts reviewed all competencies for each test for relevance to the certificate field. Further, job analysis surveys of thousands of practicing Georgia teachers ensured that the competencies proposed for each teaching field were appropriate and reasonable ones to expect of a teacher.

**Initial certification.** A candidate for initial certification or an individual seeking to add a certificate area must pass the appropriate certification test. An individual's performance on a test is evaluated against an established standard of competence, derived from information supplied by Georgia educators.

**Certificate renewal.** The tests will also be used for certificate renewal of practicing teachers. Georgia policy, as described in the Department's letter (see next page), requires that only those teachers who have *never* taken the content test in their field for their initial renewable certificate must pass the test to renew that renewable certificate.

A 1985 panel of national testing experts, reviewing the Program, determined that "The current Georgia law requiring the testing of teachers for recertification has the same purpose as the original purpose of the TCT regarding the inference to be made from the test score (i.e., determining whether teachers have minimum content knowledge in the areas of certification)."

**Other program materials.** The Georgia Program includes many other documents and materials that are publicly available.

- Registration Bulletin
- Question and Answer Brochure
- Study Guides
- Interpretive Guide for Schools of Education
- Lists of Test Objectives
- Summary Report of Low Objectives

The Georgia Department of Education should be contacted to request materials. The GDE and NES have also written a host of technical reports that document all procedures in detail.

## Legal Validation

Certification testing of teachers occurs in a context where litigation is prevalent. Examinations given to large groups of public employees across the United States have repeatedly led to lawsuits by some of those who fail. Initially, plaintiffs tended to prevail in many of these cases. In recent years, however, the challenges to testing programs have been increasingly rejected by the courts as employers have worked with testing professionals like NES to assure that proper validation procedures are used. Throughout program design and development, NES and the GDE were cognizant of the test validation requirements established by the courts. They took steps to ensure that the tests meet or exceed applicable legal and professional standards, specifically including those established by the Federal Equal Employment Opportunity Commission and the American Psychological Association.



Georgia Department of Education  
Office of Planning and Development  
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Charles McDaniel  
State Superintendent of Schools

Werner Rogers  
Associate State Superintendent

July 18, 1985

Dear Colleague:

In accordance with the provisions of the Quality Basic Education (QBE) Act, the State Board of Education must require applicants for certification renewal to post a passing score on a test of specific subject matter relative to the applicant's field of certification. The Georgia Teacher Certification Tests were developed and validated to assess an individual's teaching field content knowledge. An external review committee of national testing experts made the determination that the current Georgia law requiring the testing of educators for recertification has the same purpose as the original purpose of the TCT—to test for minimum subject matter knowledge. Therefore, the State Board of Education adopted the current testing program to meet the QBE legislative requirement.

All applicants for certification renewal whose certificates expire on or after July 1, 1986, will be required to pass the certification test indicated for their field prior to being granted a renewable certificate and will be granted a one-year extension on the existing certificate to meet the testing requirement for renewal. Therefore, these applicants, due to this one-year extension, will have eight opportunities to take the test prior to the expiration date of their certificates.

The TCT will be administered four times a year beginning this September. There is no limit to the number of times an individual may take the test, but a passing score must be posted prior to certificate renewal.

Individuals must register for the certification test corresponding to their certification field. The appropriate test must be passed only once. If a Georgia Teacher Certification Test has been passed to meet initial renewable certification requirements, it does not have to be taken again to meet renewal requirements. Individuals holding more than one certificate must pass the test in each field in order to renew each certificate.

Georgia educators participated in the original validation studies during the development of the tests and continue to be involved as each test is reviewed every three years for difficulty, readability, accuracy and bias. Through this process, the tests remain up to date and reflective of what is currently being taught in Georgia public schools. The State Department of Education publishes study guides for each test. These guides include all objectives that the tests cover and list suggested references. They are available from regional assessment centers, colleges and universities, local education agencies and the Teacher Assessment Unit of the State Department of Education. The QBE legislation requires that applicants currently employed by a local school system in Georgia and who initially do not pass the TCT be provided staff development assistance in areas of deficiencies.

We hope this information will be helpful and appreciate your support and assistance in implementing this requirement of the Quality Basic Education Act.

Sincerely,

Werner Rogers

WR:pa



A 1981 panel of nationally recognized testing experts, making an independent technical review of the Georgia Teacher Certification Testing Program, determined that the testing program meets the professional standards appropriate to it. To quote from their summary:

The development of the TCT (teacher certification tests) was carefully and systematically accomplished. The strength of the TCT lies in their validity. The relationship between the objectives tested and those taught to students in the Georgia schools has been well established. Concerns for sex and race bias have been present throughout the development of the TCT.

Also, a review of court cases concerning testing litigation demonstrates that the development procedures used in Georgia are more extensive than any of those analyzed in those cases (see, e.g., *United States v. State of South Carolina*, 445 F. Supp. 1094 (D. S.C. 1977); *Guardians Association of New York City v. Civil Service Commission*, F. 2d 79 (2d Cir 1980). The U.S. Supreme Court, in the South Carolina case, upheld the lower court decision that the procedures for development, validation, and administration of the South Carolina teachers examination were acceptable. Yet the procedures for the Georgia program provide substantially more legal safeguards than did the South Carolina program.

## TEST DEVELOPMENT PROCESS

### Overall Philosophy

The test development process incorporates the fundamental goals that characterize all aspects of the Georgia program. Hundreds of Georgia classroom teachers and teacher educators participated on review committees. Thousands more responded to job analysis survey forms that tied the test objectives to actual classroom practices. The resulting tests bear the unique stamp of Georgia classroom practices and the involvement of Georgia educators (see page 7).

### Georgia Orientation

The Georgia Department of Education consistently reviewed plans and procedures, made suggestions, and approved every detail of the test development process. Each Advisory Committee, which met several times during development, included about 12 expert practicing Georgia teachers and teacher education faculty members. The GDE selected participants based on recommendations from educators within the state, including professional organizations. All Georgia geographic regions and cultural and ethnic groups were represented on the Committees. The Committees

and independent Content Validation Panels worked with outlines, objectives, and questions based on Georgia materials to ensure that the tests are comprehensive and accurate insofar as a given subject is taught in Georgia.

### Design Program and Review Materials

NES worked closely with Georgia staff to design the program. Every decision reflected several goals:

- To ensure that the tests would be developed specifically for Georgia examinees based on unique needs and requirements within the state.
- To ensure that the tests would be equitable to all examinees.
- To ensure that the tests would be developed in accord with all legal and technical standards.

GDE and NES staff met to discuss the program in detail and design the test development process, including the involvement of large numbers of Georgia classroom teachers and teacher educators.

Because the tests were developed in phases over several years, there were minor variations from the procedures described below from phase to phase. For example, the foreign language tests include taped segments requiring both listening to and speaking in the language. The development steps for these tests were slightly different.

NES staff collected and studied a wide variety of Georgia materials prior to writing the outlines and objectives. These included the state curriculum guides, student competency tests used in Georgia, textbooks used in Georgia classrooms, and other Georgia curriculum materials.

### Develop Topic Outlines and Objectives

The GDE identified the certificate fields for which tests would be prepared. NES's Editorial and Test Development Department and other project staff then cooperated with professionals in each content field to construct topic outlines and objectives (see page 8).

**Draft topic outlines.** NES content experts developed draft sets of topics in each field. Other NES Editorial and Test Development staff independently reviewed and edited all outlines for comprehensiveness, content coverage, organization, level of specificity, clarity, accuracy, and freedom from bias.

**Advisory Committee review.** At their first meeting, the Advisory Committees of Georgia educators met in Atlanta with NES editors and project staff to review and revise the topic outlines.

Test Code	Certification Test	Certification Field(s)	Test Code	Certification Test	Certification Field(s)
01	Early Childhood	Early Elementary (Grades K-4)*	14	Health and Physical Education	Health and Physical Education (Grades K-12)
02	Middle Childhood	Middle Grades (Grades 4-8)*	15	Special Education (Mental Retardation)	Mental Retardation (Grades K-12)
03	Communicative Arts	English, Speech (Grades 7-12)	16	Special Education (Professional Knowledge)	Learning Disabilities, Behavior Disorders, Special Education Interrelated (Grades K-12)
04	Social Studies	Social Studies, Geography, History, Political Science, Economics, Psychology, Sociology, Anthropology, Behavioral Science (Grades 7-12)	17	Marketing and Distributive Education	Marketing and Distributive Education (Grades 7-12)
05	Mathematics	Mathematics (Grades 7-12)	18	French	French (Grades 7-12)
06	Science	Science, Earth Science, Biology, Chemistry, Physics (Grades 7-12)	19	German	German (Grades 7-12)
07	Business	Bookkeeping and Business Management, Business Data Processing and Accounting, Comprehensive Business Education (Grades 7-12)	20	Latin	Latin (Grades 7-12)
08	Home Economics	General Home Economics, Vocational Home Economics (Grades 7-12)	21	Spanish	Spanish (Grades 7-12)
09	Industrial Arts	Industrial Arts (Grades 7-12)	22	Hearing Impaired	Hearing Impaired (Grades K-12)
10	Agriculture	General Agriculture, Vocational Agriculture (Grades 7-12)	23	Administration and Supervision	Administration and Supervision
11	Art	Art (Grades K-12)	24	School Counselor	School Counselor
12	Music	Music (Grades K-12)	25	School Psychologist	School Psychologist, School Psychometrist
13	Media Specialist	Media Specialist (Grades K-12)	26	Reading Specialist	Reading Specialist (Grades K-12)
			27	Health	Health (Grades K-12)
			28	Speech and Language Pathology	Speech and Language Pathology
			* Individuals holding an Elementary Grades 1-8 certificate must take either the Early Childhood or Middle Childhood test.		

## GEORGIA TEACHER CERTIFICATION TESTS

**Draft objectives.** NES then prepared objectives to match the approved outlines. These were independently reviewed and edited by NES content experts and editorial staff.

**Advisory Committee review.** At a second meeting, the Committees reviewed the draft test objectives. The individual Committees worked on a consensus basis, and the Committee chairperson and NES representative to each Committee documented the revisions.

## Conduct Job Analysis and Select Test Objectives

Legal and professional standards require that a certification test reflect the essential performance activities required of incumbents, i.e., that it be job-related. The Program met this goal by surveying certified, practicing Georgia teachers, separately in each teaching field. NES constructed survey forms using the approved and revised objectives. Survey respondents indicated whether they taught the given objectives and, if so, how *essential* they thought each one was and how much *time* they spent teaching it.

The survey group in each certificate area was a random sample of Georgia teachers in that field. Each sample was selected to include teachers at schools of different sizes, at all appropriate grade levels, and in all congressional districts. The response rate for the job analysis was approximately 70 percent, extraordinarily high for mailed survey instruments.

**Analysis review.** NES analyzed the job analysis survey results statistically and produced, by subarea of each field, a list of objectives judged by Georgia teachers to be most important. NES formulated recommendations regarding the objectives for each test. These recommendations were submitted to the GDE, which, along with its curriculum consultants and Advisory Committees of classroom teachers and teacher educators, selected the objectives that would be measured on the tests.

## Develop Test Questions

NES staff used the selected objectives to create a "blueprint" for each field. The blueprint listed the objectives and the number of test items to be written for each. The tests thereby cover the more important content elements in a certificate field; each test measures a representative sample of the essential content knowledge required on the job.

**Technical writing.** NES staff experts trained professionals in each field to write the questions and then reviewed and edited each one, applying relevant criteria, such as item/objective match, significance of content, accuracy of content, freedom from bias, psychometric requirements, and editorial style and consistency.

**Committee review.** At their third meeting, the Advisory Committees reviewed the draft items in their individual fields. NES revised the items, based on a consensus of Committee judgment.

## Conduct Field Test

NES conducted both a small-scale preliminary tryout and a large-scale field test with all test items. The items were given to seniors in Georgia teacher preparation programs and to first-year classroom teachers in the State. NES analyzed the field test results statistically to identify items possibly requiring revision.

NES also conducted a formal analysis for potential bias for all test items. Items thus flagged were reviewed and revised as necessary.

## Validate Content

The GDE selected Content Validation Panels of about 20 members in each teaching field, similar in composition to the original Advisory Committees, for an independent validation of each item. The new Panels reviewed each test question and rated it on several criteria, but especially for potential bias and on the relationship of the question to its objective, i.e., its content validity. As the objectives had been selected on the basis of job analysis results and the questions measured those objectives, Panel acceptance ensured that the test questions were directly related to essential content knowledge requirements as indicated by Georgia classroom teachers.

Based on a statistical analysis of Panel ratings, the questions were designated as valid or invalid. Valid items became eligible for the testing program.

## Set Passing Scores

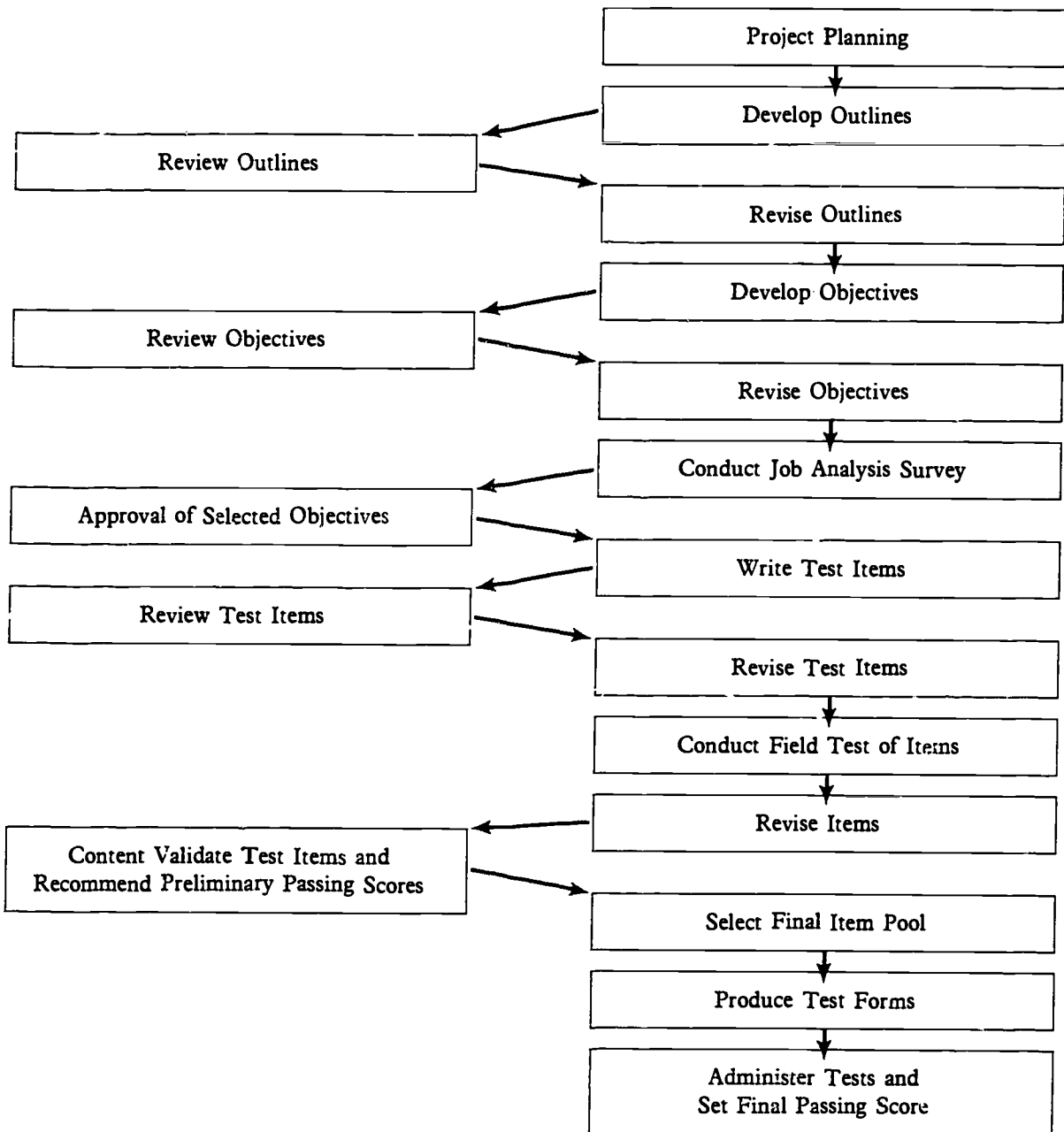
**Panel recommendations.** The Validation Panels also provided information for determining the passing score for each test. The panel members responded to the following question for each item: "Should a person with minimum competence in the objective be able to respond correctly to this item?" In other words, should a candidate for professional renewable teacher certification be able to answer the item? NES analyzed these ratings statistically and calculated a preliminary passing score for each test, giving this information to the Department of Education.

**Equity for examinees.** The Georgia Department of Education assigned the final passing score for each field. To help ensure equity to examinees, the passing score was set at 2.5 standard error of measurement units (10 percentage points) below the Panels' recommendations on each test. This decision, along with the policy of unlimited retake opportunities for examinees, virtually eliminates the chance of misclassification of examinees. In short, competent examinees have virtually no chance of being erroneously classified as not passing. NES scores all tests and distributes results to examinees, teacher preparation institutions, and the GDE.

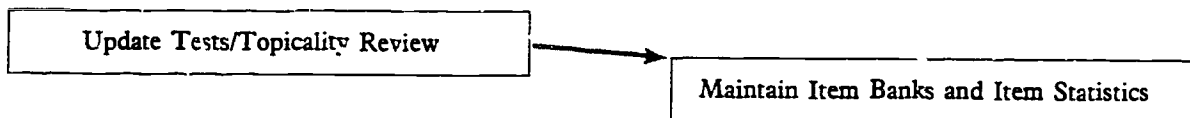
## TEST DEVELOPMENT PROCESS

### Georgia Advisory Committees

### Georgia Department of Education/NES



### ONGOING



Note: Each teaching field Advisory Committee consisted of about 12 members who were Georgia public school teachers and college education faculty. The Committees and Panels reflected the racial composition of Georgia.

## GEORGIA TEACHER CERTIFICATION TESTING PROGRAM

## Update Tests

The tests included in this program are regularly reviewed and updated to assure their continuing relevance to classroom teaching in Georgia and to protect their security. New items from the bank of validated test questions replace other items as new test forms are created.

**Topicality reviews.** Since their initial development, the topic outlines, objectives, and items in the test fields have been reviewed by Advisory Committees for their ongoing "topicality," that is, the extent to which they continue to reflect the content of a field and the manner in which that content is taught in Georgia classrooms. The review occurs at three-year intervals. All outlines, objectives, and items have been through at least one topicality review; many have been through two. In addition, NES reviews and revises individual test questions based on statistics generated during administrations.

Advisory Committees also consider other major program changes. For example, the Business test recently went through significant revisions to incorporate an information processing subarea. This addition required the development of new test materials by steps similar to those in initial test development.

## AVOIDANCE OF TEST BIAS

Fairness to all examinees is a paramount concern of the Georgia Program. An examinee's score must reflect his or her knowledge of the content of a teaching field. Bias would interfere in that the wording of individual test questions may mislead an examinee, or the content measured by the test may not accurately reflect the overall content most relevant to the purpose of the test. Both of these potential sources of bias, as well as others, were eliminated in designing the testing program for Georgia.

Test development incorporated substantial and repeated reviews by experts in the content measured by the test. No mathematical formulas can substitute for their professional judgment. Statistics calculated for test questions and total test content augmented these judgments, indicating test questions which may require further professional review.

### GEOMETRY

- Identify point sets such as half planes, rays, segments, angles, closed curves (including points inside, on, and outside closed curves), and polyhedra.
- Identify conditions for incidence, parallelism, and perpendicularity of lines and planes.
- Identify the properties of point sets which are invariant under transformations such as reflections, rotations, and translations.
- Recognize congruent figures and identify the isometry which maps one onto the other; in particular, identify the group properties associated with rotation and reflection of such given geometric figures as squares and equilateral triangles.
- Identify examples which exhibit properties of similarity of geometric figures by common proportionality of corresponding parts.
- Analyze the roles of undefined terms, definitions, and axioms in geometry.
- Identify and/or prove theorems about parallel lines and their transversals including the contribution of the parallel postulate.
- Apply theorems on circles, and lines related to circles, in proofs and problems.
- Use basic constructions to determine the locus of points satisfying one or more conditions.
- Apply geometry in the solution of problems in everyday life, such as scale drawings, tessellations, inaccessible distances, indirect measurements, and designs.

### TEST OBJECTIVES: MATHEMATICS

NES, under the supervision of the GDE, took these steps, among others, to eliminate bias from the 28 tests used in the Georgia Teacher Certification Testing Program:

- The test development process was open, thorough, and incorporated multiple checks and balances.
- The Advisory Committees and Validation Panels adequately represented all major racial, sexual, ethnic, and regional constituencies. Each member of a Committee was an outstanding content expert in his or her teaching field.
- The GDE continually reviewed development procedures to identify issues of concern to specific groups in the population, particularly racial groups.
- The first and major source of information in defining the content of each test was textbooks and curriculum materials used in Georgia classrooms; the tests thus include content relevant for teachers.
- Publically available, written objectives explicitly define the content of each test. The objectives were all reviewed by Georgia educators for potential bias and were revised based on their recommendations.
- Incumbent teachers in each certificate field participated in job analysis surveys. The surveyed population was sampled in a statistically representative way so that all Georgia constituencies were represented.
- For each teaching field, Georgia curriculum consultants and other Department staff reviewed the results of the job analysis surveys and used these data to select the objectives which reflect critical elements of a teacher's responsibilities in Georgia.
- Every question for each of the 28 tests was written and edited by individuals trained to avoid bias in the wording of test questions.
- Advisory Committees of Georgia content experts reviewed every question in each teaching field for potential bias.
- An independent Validation Panel of Georgia educators in each teaching field assessed every question a second time to judge the validity of the test. Panels specifically reviewed every test question for bias.
- Each test question went through a field test process to identify those which may need additional review and revision.
- NES generated statistics for each test question to identify those that the analyses suggested deserved further review.
- NES solicits and follows up on comments by examinees concerning the wording of individual test questions.
- Objectives and sample items are published and distributed to examinees before the exam.

- Examinees receive detailed, diagnostic reports of their performance on the tests.
- The GDE makes available study guides to examinees so that they can better prepare for the test.
- Schools of Education receive detailed reports describing the performance of their candidates in each field.

## RETAKE ANALYSIS AND TEST RELIABILITY

### Retake Analysis

The GDE also analyzes the passing rates of individuals who do not pass an examination on their first attempt, i.e., the cumulative passing rate for all persons who enter the testing program. These figures are generated in aggregate; the certification office receives only the notification of the names of passing examinees, not the number of attempts. As the chart demonstrates, the cumulative passing rate for all test fields is approximately 88 percent; that is, almost 9 of every 10 people who take a test pass the test in their chosen field. Only about 1 person in 10 is unsuccessful in passing the test. Georgia's policy of unlimited retake opportunities for examinees also reduces the chance of errors in classification.

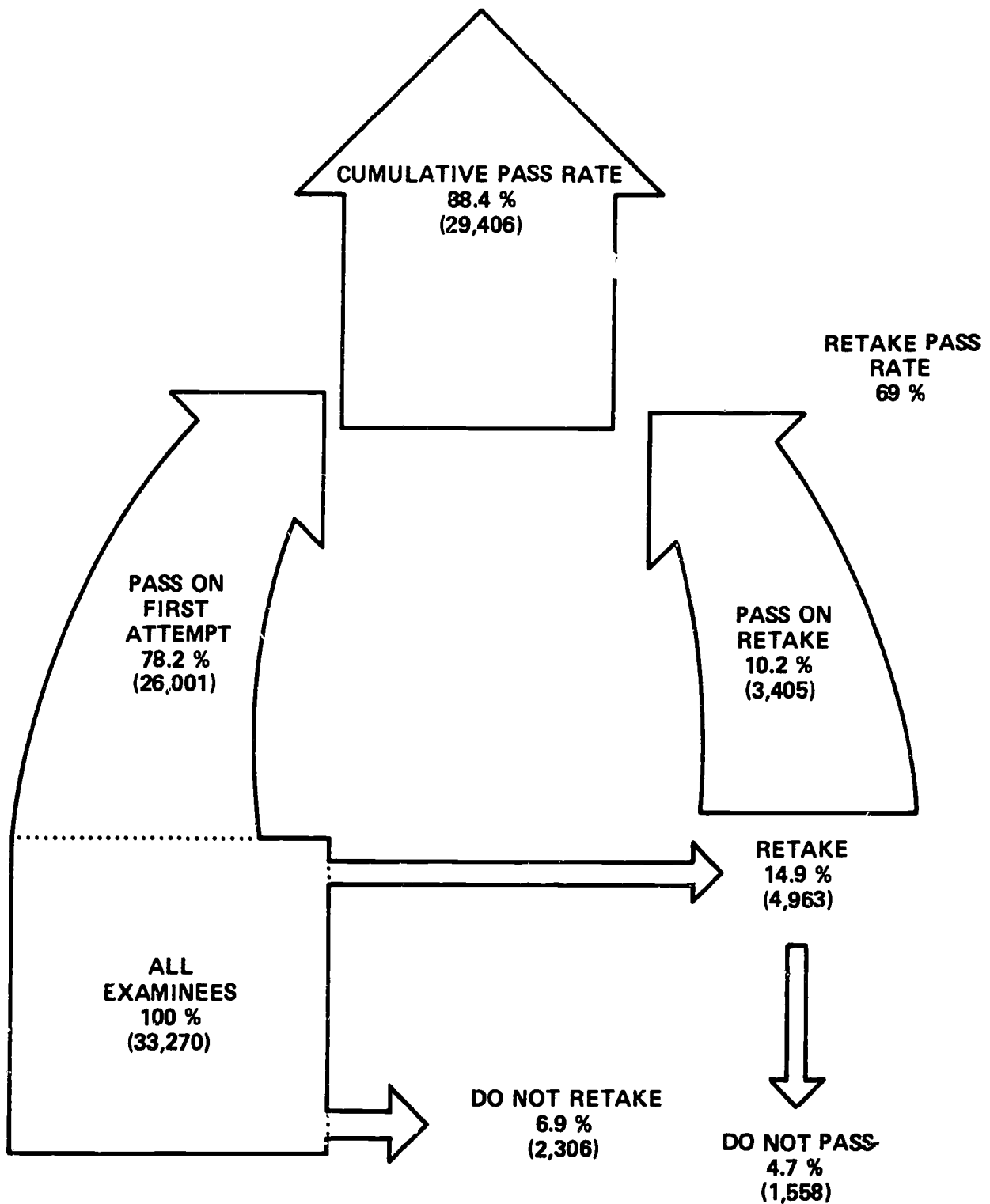
It is important to note that the passing rate is 69% for those individuals who retake an examination after failing on their initial effort. This is one of the highest rates reported for teacher certification testing programs. The retake pass rate is due in large part to the amount of support and diagnostic information provided to examinees before and after test administration (see page 10).

### Test Reliability

The tests in this program are highly reliable instruments; they are consistent measures of test content over time. High reliability means that an examinee can be confident that he or she would receive the same scores, with minor random variations, regardless of the administration or test form taken. The Livingston Classification Reliability Estimates for the program range from .84 to .93. The Kuder-Richardson reliability estimates range from .87 to .94.



## INITIAL AND RETAKE ANALYSIS



Note: The numbers in parentheses are the total number of examinees in each of the categories for all test administrations from November 1978 through May 1985.

# TEST ADMINISTRATION

The goals of test administration are security, fairness, and convenience. The Georgia Teacher Certification Testing Program goes to great lengths to meet these requirements. Strict maintenance of the security of the tests does not interfere with courtesy and fairness to examinees.

## Registration Process

All examinees and teacher education faculty members must receive advance information regarding the testing program. The Georgia Registration Bulletin accomplishes this task by describing the tests and by providing all necessary information to candidates. The Bulletin is updated annually to include new test dates and any changes in policy or procedures.

As examinees complete the registration form and submit it to NES, they receive an Acknowledgment of Receipt of Registration letter. The letter is accompanied by a list of the major content subareas on the test for which the examinee has registered, a set of sample objectives on which the test is based, sample test items showing the types of questions that appear on the test, and information on obtaining Study Guides.

One to two weeks prior to the administration, all examinees receive an admission ticket providing information on the location of the test site, a seat number, and the exact time of the test session.

## Test Administration

NES administers the tests four times per year at between two and six sites in Georgia per administration. At all sites and for all administrations, examinees receive identical instructions for taking the test. They are permitted to take as much time as needed to complete the tests. A representative of NES attends each test administration to train and monitor the test administrators.

## Test Scoring

NES staff check all answer sheets to make sure they are complete and free from stray marks before scoring them by computer. The statistical results for each item on all tests are generated before score reports are produced. NES checks the computer-generated scores against a sample of hand-scored answer sheets to ensure accuracy of the procedures. The GDE and NES review any item for which there is a potential problem; any action necessary to ensure fairness is then taken. Only afterwards are score reports printed.

## Score Reporting

Reporting of test results is a major strong point of the Georgia Teacher Certification Testing Program. Certification testing contributes to the improvement of education in Georgia by providing teachers and teacher educators with clearly presented, useful information. The score reports incorporate diagnostic information for identifying areas of strength and weakness.

**Reports to Individual Examinees.** Each examinee receives a letter that indicates his or her pass/fail status, describes performance in each of the major content subareas of the test, and notes the relative size of each subarea. These subareas correspond to those listed in the published objectives. This information is invaluable to individual examinees for determining areas in which they require further study (see page 12).

**Reports to Teacher Education Institutions.** NES reports test results to teacher education institutions within six weeks after the test administration. They receive rosters of their examinees for each test; the roster lists student performance in subareas of the examination as well as on the total test. Separate reports are provided for education and non-education majors. Average scores for examinees on each test aggregated for the institution and for the entire state are provided for comparative reference. This summary information helps teacher education programs assist examinees in improving their performance in areas of weakness and serves as a basis for program review (see page 13).

**Reports to the Georgia Department of Education.** Following each administration, the GDE receives a series of score reports aggregating and summarizing performance across the state. These reports include a roster of examinees taking the examination in each test area and their total test and subarea performance. NES also reports the average score on each test and in each subarea for examinees statewide. The certification office itself receives only a list of passing candidates.

In addition, NES provides the GDE several other summary reports including:

- Statewide summary report listing pass/fail rates by field.
- Alphabetical roster of all examinees tested, indicating their pass/fail status and total test score.
- A data tape listing all passing candidates for use by the state certification office.
- Summary of pass rates for each test area by institution.
- A summary of pass/fail rates by sex and race.
- An objectives summary for each test field that indicates test objectives on which aggregate scores for the state were low.



GEORGIA TEACHER CERTIFICATION TESTING PROGRAM  
INDIVIDUAL TEST SCORE REPORT

DATE TEST TAKEN: MAY XX, 19XX  
TEST TAKEN: EARLY CHILDHOOD

EXAMINEE NAME

EXAMINEE NUMBER = 0000000

EXAMINEE ADDRESS

YOU HAVE NOT PASSED THE EARLY CHILDHOOD  
CERTIFICATION TEST WHICH YOU TOOK ON MAY XX, 19XX.  
YOUR SCORE ON THE TEST WAS 59. THE PASSING SCORE IS 70.

THE NEXT TEST WILL BE GIVEN ON NOVEMBER XX, 19XX. THE DEADLINE FOR  
REGISTRATION FOR THIS TEST IS OCTOBER XX, 19XX. REGISTRATION  
BULLETINS AND OBJECTIVES ARE AVAILABLE FROM LOCAL BOARDS OF  
EDUCATION, REGIONAL ASSESSMENT CENTERS, AND COLLEGES AND  
UNIVERSITIES. THESE MATERIALS AND A LIST OF THE OBJECTIVES  
THAT HAVE HAD A LOW RATE OF CORRECT RESPONSES STATEWIDE  
MAY BE OBTAINED FROM PERFORMANCE BASED CERTIFICATION, GEORGIA  
DEPARTMENT OF EDUCATION, TWIN TOWERS EAST, ATLANTA, GA 30334.

QUESTIONS ON THE TEST YOU TOOK ARE GROUPED INTO MAJOR CONTENT  
SUBAREAS. TO ASSIST YOU IN FURTHER STUDY OR IN PREPARATION FOR  
RETAKING THE TEST, YOUR PERFORMANCE IN EACH CONTENT SUBAREA IS  
PRESENTED. WHEN READING THE TABLE BELOW PLEASE NOTE THAT EACH  
SUBAREA CONTAINS A DIFFERENT NUMBER OF QUESTIONS, AND THEREFORE  
THE AVERAGE OF YOUR SUBAREA SCORES MAY BE DIFFERENT FROM YOUR  
SCORE FOR THE TOTAL TEST. THE NUMBER OF QUESTIONS IN EACH SUBAREA  
IS INDICATED BY THE ASTERISKS APPEARING NEXT TO EACH SUBAREA SCORE.

	SCORE	SUBAREA
***	57	LANGUAGE ARTS
***	63	MATHEMATICS
**	71	SCIENCE
**	28	SOCIAL STUDIES
*	100	ART
*	81	MUSIC
*	45	PHYSICAL EDUCATION, OUTDOOR EDUCATION, HEALTH

\* = 1-10    \*\* = 11-20    \*\*\* = 21 OR MORE QUESTIONS PER SUBAREA

THE RESULTS OF THIS TEST HAVE BEEN FORWARDED TO THE GEORGIA  
TEACHER CERTIFICATION OFFICE. YOU SHOULD RETAIN THIS TEST  
SCORE REPORT FOR YOUR OWN RECORDS.

**INDIVIDUAL EXAMINEE SCORE REPORT**

GEORGIA TEACHER CERTIFICATION TESTING PROGRAM  
TEST SCORE REPORT FOR (NAME OF INSTITUTION)

DATE TEST TAKEN: MAY XX, 19XX  
TEST TAKEN: (01) EARLY CHILDHOOD

QUESTIONS ON THE TEST ARE GROUPED INTO PRIMARY CONTENT SUBAREAS. THE SCORE FOR EACH EXAMINEE ON EACH SUBAREA IS GIVEN. THE NUMBER OF QUESTIONS PER SUBAREA IS NOT EQUAL AND THEREFORE AN AVERAGE OF THE SUBAREA SCORES MAY NOT EQUAL THE TOTAL TEST SCORE.

THE SUBAREAS ON THE TEST ARE AS FOLLOWS:

- \*\*\* 1 = LANGUAGE ARTS
- \*\*\* 2 = MATHEMATICS
- \*\* 3 = SCIENCE
- \*\* 4 = SOCIAL STUDIES
- \* 5 = ART
- \* 6 = MUSIC
- \* 7 = PHYSICAL EDUCATION, OUTDOOR EDUCATION, HEALTH

*Results are provided for each test subarea, for each examinee, and the group as a whole.*

\* = 1-10 \*\* = 11-20 \*\*\* = 21 OR MORE QUESTIONS PER SUBAREA

INSTITUTION: 17 EDUCATION MAJOR EXAMINEES TOOK THE TEST 14 PASSED ( 82%) 3 FAILED ( 18%)  
STATEWIDE: 602 EDUCATION MAJOR EXAMINEES TOOK THE TEST 416 PASSED ( 69%) 186 FAILED ( 31%)

SSN	EXAMINEE NAME		PASS/ FAIL	TOTAL TEST	1	2	SUBAREA						
000000000	LAST NAME	FIRST NAME					3	4	5	6	7		
↓	↓	↓	PASS	84	75	92	79	92	69	100	90		
			FAIL	54	46	46	64	75	34	41	90		
			PASS	78	72	76	86	66	100	100	90		
			PASS	71	54	73	79	75	69	100	90		
			FAIL	60	57	43	79	83	69	81	69		
			FAIL	54	66	35	47	75	34	62	79		
			PASS	81	75	76	86	92	100	82	100		
			PASS	87	92	76	93	100	69	100	100		
			PASS	73	69	68	71	75	100	100	90		
			PASS	78	66	90	71	92	34	100	69		
			PASS	77	72	76	71	83	100	100	79		
			PASS	89	86	88	86	100	69	100	100		
			PASS	89	83	95	86	100	34	81	100		
			PASS	87	80	90	79	100	100	81	90		
			PASS	80	80	73	86	83	69	100	90		
			PASS	73	75	68	79	83	69	62	69		
EDUCATION MAJOR INSTITUTION AVERAGE				76	72	72	77	85	68	86	87		
EDUCATION MAJOR STATEWIDE AVERAGE				75	70	74	73	82	64	83	85		

THE INSTITUTION AVERAGE INCLUDES STUDENTS WHOSE RESULTS ARE NOT PRINTED

INSTITUTION: 17 EXAMINEES TOOK THE TEST 14 PASSED ( 82%) 3 FAILED ( 18%)  
STATEWIDE: 607 EXAMINEES TOOK THE TEST 418 PASSED ( 69%) 189 FAILED ( 31%)

## TEACHER TRAINING INSTITUTION ROSTER REPORT

### ***End of Year Summary Reports to Institutions and the Georgia Department of Education.***

At the close of each school year, NES forwards to institutions and the GDE a variety of reports summarizing information for all test administrations during the year. These include the Objective Summary Report described above. These reports are disseminated to institutions throughout Georgia for use in curriculum review and program planning.

***Objectives Summary Report.*** This report exemplifies the type of useful information provided as a part of the Georgia Teacher Certification Testing Program. The summary of objectives is valuable diagnostic information for individuals as they prepare for the test (see page 15).

## **SUPPORT TO EXAMINEES**

The candidate is the center of attention in this educational program. By being sensitive to candidate needs and by incorporating administrative procedures that are efficient, fair, and professional, the program must and does support this interest.

### **Before Test Administration**

***Georgia-based development.*** A fair and job-relevant test is the greatest service to examinees. The candidate who registers for a Georgia Teacher Certification Test can know that the tests are based on a job analysis completed by Georgia teachers. Test content is nothing more than the content these candidates will be expected to teach in Georgia.

One primary benefit of a test program based on stated objectives is that support for examinees and for teacher education institutions is both appropriate and possible. Several program publications provide information and direct assistance.

***Question and Answer Brochure.*** This brochure describes the basic parameters of and answers the most common questions about the testing program. Tens of thousands of copies have been distributed throughout the state.

***Test objectives.*** The lists of objectives covered by each test, organized by subarea, are available through the GDE or the institutions of higher learning. The examinee thus knows the domain of content for the test.

***Summary Report of Low Objectives.*** This document assists examinees by indicating to them in advance those objectives which have traditionally proven the most difficult for other candidates.

***Study Guide.*** The purpose of the Georgia Teacher Certification Testing Program is to improve the quality of education in Georgia schools. Candidates for certification have access to the test objectives/study guides from departments and schools of education in Georgia colleges and universities, Regional Assessment Centers, local education agencies, and the Teacher Assessment Unit. To facilitate preparation for the examination, the GDE provides Study Guides in each test field that list resources available for preparing for the test.

***Registration Bulletin and Receipt of Registration.*** Before actually taking a test, a candidate generally has many questions about the test development process, state education policies, administration policies and procedures, and even about which specific test to take to acquire a teaching certificate. The Georgia Registration Bulletin is a complete guide to these issues.

***Interpretive Guide.*** NES prepares and distributes to each college and university a guide to the interpretation of both individual and institutional score reports. This Guide assists teacher educators to derive the maximum benefit from the detailed reports they receive.

***Fair, well-managed administration procedures.*** A successful test administration is a well-managed, structured event that provides the same opportunities for performance to each candidate across all sites. Maintaining test security is paramount. NES has never lost a single test document in over seven years of administration in Georgia. Administration conditions must also be comfortable for the candidate and enhance, rather than obstruct, performance.

### **After Test Administration**

***Diagnostic information.*** A candidate for certification deserves far more than a simple pass/fail designation. The Georgia Teacher Certification Testing Program sends a detailed score report to each examinee, including diagnostic information on strengths and weaknesses on the specific subareas of the test. The score report is thus directly related to the objectives on which the test is based, integrating test results with the overall structure of the program.

***Retakes and rescores.*** Georgia permits unlimited retakes on the certification tests. Rescheduling is decided by the candidate, facilitated by information on the individual score report. Also, examinees can request to have their tests rescored; NES provides this service promptly for a service fee.

# GEORGIA TEACHER CERTIFICATION TESTING PROGRAM

## EARLY CHILDHOOD (partial listing) YEAR ENDING JUNE 1984

### Summary of Objectives with Low Correct Responses to Items

The following is a summary of the objectives which had a standard score of less than 70 for the items which measure the respective objectives. This information is based on statewide results.

Subarea: Language Arts      Subarea Average: 71      (N-65, 736\*)

<u>Standard Score</u>	<u>Objective</u>
46	Identify appropriate methods of evaluating and editing writing.
54	Distinguish through classification both the parts of speech (noun, verb, etc.) and structural units (adverbial clause, noun phrase, etc.) of given sentences.
58	Use consonants, consonant blends, and consonant digraphs to decode words.
60	Recognize causes and/or conditions of reading difficulty (lack of knowledge about letter sounds, limited sight vocabulary, poor auditory/visual memory, reversals, poor eye-hand coordination, limited attention span, hyperactivity, etc.).
60	Identify uses and functions of prefixes, root words, and suffixes in word formation.
61	Use vowel principles to decode words.
62	Identify components such as main idea, subordinate ideas, and supporting details in a given passage.
63	Relate and synthesize pertinent elements for comprehension of a selection.
63	Interpret assessment results for teachers and parents.
65	Identify the four word classes and identify the position they usually occupy in a sentence (noun, verb, adjective, adverb).
68	Identify aspects of behavior indicating reading readiness (including interest, attitude, sensory perception).

\* N is equal to the number of items times the number of examinees.

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## OBJECTIVES SUMMARY REPORT

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## **SUMMARY**

The Georgia Teacher Certification Testing Program meets the highest professional standards, is fair to all examinees, and is legally valid. Test development and administration procedures reflect Georgia Department of Education policy. Thousands of Georgia educators actively participated in creating the tests and maintain involvement through their periodic review and updating. The process includes multiple review of all objectives and questions. Potential test bias is an explicit review criterion. Examinees are offered several forms of support in preparing for the tests and are sent diagnostic information on their scores. Schools of Education, likewise, receive reports and analyses designed to assist them in preparing teachers for Georgia's classrooms.