

Illinois Certification Testing System



AN INTRODUCTION

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INTRODUCTION



This document provides information about the Illinois Certification Testing System (ICTS), which has been developed to assess the knowledge and skills of candidates seeking various types of educator certification in the state of Illinois. It describes activities relating to the design, development, and administration of the examination program.

The ICTS tests address the School Code of Illinois and Illinois Administrative Code, which require prospective educators (e.g., teachers, administrators, school service personnel) to pass designated examinations as a requirement for receiving certification. These examinations measure a candidate's basic skills, pedagogical knowledge, and content-area knowledge and skills.

The ICTS was custom developed with the extensive involvement of Illinois educators to meet unique Illinois educator standards. The ICTS tests are designed to ensure that each certified educator has the necessary knowledge and skills to work in Illinois public schools.

The ICTS consists of:

- the Basic Skills test (for candidates seeking entry to Illinois educator preparation programs and for teachers, school service personnel, and administrators seeking certification);
- content-area tests (for teachers, school service personnel, and administrators);
- Assessment of Professional Teaching tests (for teacher certification); and
- language proficiency tests (for bilingual certification).

For further information regarding teacher, administrator, or school service personnel certification, contact a regional office of education or a college or university with an approved educator preparation program or visit the:

Illinois State Board of Education Web site:
www.isbe.net/teachers

For further information regarding test registration or administration, contact:

ICTS
National Evaluation Systems, Inc.
P.O. Box 226
Amherst, MA 01004-0226

Telephone: (413) 256-2870

Internet registration services are available at:
www.icts.nesinc.com

For further information about the tests that are offered as part of the ICTS program, or to download study guides for a field-specific test, visit the ICTS Web site at:

www.icts.nesinc.com

AN ILLINOIS PROGRAM



The Illinois Certification Testing System (ICTS) was custom designed and developed under the direction of the Illinois State Board of Education (ISBE) to meet Illinois needs and requirements. The testing program addresses several structural standards designed to ensure that Illinois assessment goals are met. Some of these standards are discussed in the following section.

Basis in Illinois Law, Policy, and Practice

The ICTS was created to meet legal and regulatory requirements and to fulfill policy initiatives in Illinois relating to the preparation and certification of educators. The program derives from Section 21.1a of the School Code of Illinois, relevant sections of the Illinois Administrative Code, and policies and guidelines for public schools set by ISBE regarding educator certification.

The development process for the program was designed to meet the specific needs and interests of Illinois, as expressed in policies and guidelines established by ISBE. The ICTS is responsive to and consistent with Illinois regulations, Illinois public school curriculum frameworks and standards, and Illinois educator preparation standards and programs. Illinois regulations, guidelines, textbooks, and other instructional materials serve as the foundation for test content and ensure a demonstrable correlation between the regulations, standards, and programs and the ICTS tests.

The ICTS is aligned with Illinois educational law, policy, and practice. Furthermore, the state has ownership of the custom-created examination materials of the ICTS, including test items and performance exercises, informational and procedural manuals, and reports. Consequently, as state standards and regulations change and new educational policies and content directions emerge, the program is designed to accommodate these circumstances.

Illinois Educator Involvement

The ICTS was developed through a collaborative process involving the combined expertise of Illinois classroom educators, educator preparation faculty, psychometric experts, researchers engaged in the study of teaching and learning, and state policy and program personnel.

For each test, a separate Content Advisory Committee (CAC), consisting of Illinois educators who were experts in the content of the test and the Illinois classrooms in which the content was taught, was established at the beginning of each phase of the program to recommend to the state the design, content, wording, and specifications for the examination program. In addition, a Bias Review Committee (BRC) of Illinois educators was formed to advise the state on issues pertaining to bias and equity and to review testing materials for potential bias. The members of these committees were exemplary educators selected through a nominating process that sought from colleagues, supervisors, and professional organizations the names of outstanding educators

and teacher educators. Illinois educators were involved in many other ways as well: as participants in the content validation survey that helped to determine test content, as reviewers of all test items, and as judges in passing score review processes.

The substantive participation of Illinois educators in the development, administration, and scoring of the Illinois certification tests ensures the assessments are reflective of the standards for Illinois educators and the profession of teaching and its practice in Illinois. Illinois educators were centrally involved in: designing the test frameworks upon which each test in the ICTS was based; approving the content proposed for each test through participation in content validation surveys; determining the test and item specifications that guide item writing; considering the format and nature of each examination (including the use of performance-based item formats); reviewing and modifying test item content; recommending scoring procedures for performance tasks; reviewing field test results; recommending passing standards; reviewing test administration policies and procedures; and participating in scoring activities on a voluntary basis.

Rigorous Assessments

The design of the ICTS, by which three distinct areas of professional knowledge are tested, is itself a statement of high educational standards. The content of the tests, too, as defined and implemented with the involvement of Illinois educators on CACs and the BRC, embodies high standards of content-area preparation, critical thinking, and professional knowledge.

The Basic Skills test assesses reading comprehension, language arts (grammar and writing), and mathematical skills and is completed by candidates either prior to their entry into an educator preparation program or before they are granted a certificate. It assures Illinois citizens that all of their public school educators exceed a uniform minimum skill standard.

Content-area tests are substantial examinations of subject-matter knowledge at a level of understanding required of educators. They entail the use of conceptual knowledge and thought, not the mere memorization and recounting of facts.

The knowledge of pedagogical and teaching foundations evaluated by the Assessment of Professional Teaching (APT) tests is substantive, and the test items are demanding, thought-provoking, and reflective of educational practice.

Freedom from Bias and the Inclusion of Cultural Diversity

Prevention of bias in the ICTS is a matter of equity and fairness, as well as a central aspect of test validity. Guarding against bias involves the collaboration of many educators and reviewers and is focused on two aspects of potential bias: excluding language, content, or perspectives that might disadvantage candidates, and including content, language, and perspectives that reflect the diversity of the Illinois population.

Educators from diverse backgrounds were involved throughout the development of examination materials for the ICTS tests. Through their active, sustained, and significant participation, the ICTS benefited from rigorous attention to bias and equity issues and a determination to make the examinations fair and responsible. The ICTS BRC had an ongoing role during the development

of the examination materials. This committee continues to work on the program, performing periodic reviews and reviewing newly developed assessment materials.

In addition to the BRC, which was constituted for the primary purpose of addressing bias issues, the other groups involved in the development of test materials (e.g., CACs, respondents to the content validation surveys) reflected diverse backgrounds and were also asked to be attentive to issues of bias and equity in their reviews of test materials.

In addition to judgment-based methods of potential bias detection implemented during test development, technically acceptable statistical methods to identify potential bias in test items are applied to the ICTS. Identified items are reviewed and, if judged to have potential bias, either excluded from the examination item banks or modified.

Assessment Formats

Test item formats in the ICTS range across a spectrum of available testing methods, including complex multiple-choice items, listening items, speaking items, open-ended items, and extended written compositions and analyses. Illinois educators who were involved in the development of the program had the benefit of the expertise of state policy personnel, nationally prominent researchers, and experienced psychometricians in determining the test item formats that would be used in each field. A key factor in deciding the issue was the nature of the field, as determined by the professional judgments of Illinois educators in that field.

The chosen test item formats were judged to be appropriate for the situation, the test field, and the purpose of testing. Ultimately, the formats were selected to meet the goals and characteristics of the ICTS.

As the program continues and developments emerge in the academic fields that are the focus of the examinations, in the profession of teaching and its practice in Illinois, or in the testing technologies and psychometric methods that sustain technical quality, test formats and procedures will change as appropriate.

Multiple Sources of Validity Evidence

The test development approach followed for the ICTS attended to the central technical issue of validation by gathering validity evidence from a number of sources throughout the development of the program. For example, the content of the tests was aligned with the Illinois Content-Area Standards for Educators and was grounded in Illinois materials and resources that relate to the educator's job in the public schools. Review committees comprising Illinois educators worked closely with draft objective statements to ensure that they were aligned with the standards and appropriate for the specific job of an Illinois educator. The committee-approved objective statements were formatted into content validation surveys and distributed to practicing classroom educators and teacher educators for further validation.

Similarly, test items underwent several reviews, including a review by Illinois educators and bias experts and a review of field test data, to ensure their appropriateness for the public school job. Toward the end of the development cycle, the validity of the items was confirmed by reviewers

participating in passing score review activities. The multifaceted concern with validation is a hallmark of the ICTS and reflects current industry standards and professional thinking on the nature and practice of validation.

Professional Test Administration

The ICTS's approach to test administration focuses on professional treatment of educators and candidates. As befits a program that stands at the gates to the profession, candidates are treated with courtesy and respect, and registration is accomplished easily and quickly. Candidates' concerns are addressed and their feedback heeded.

The many and complex activities that are involved in test administration support an equitable, standardized, and test-secure administration designed to ensure that candidates experience a smooth and efficient test session. Activities are handled with due concern for the security and fairness that must characterize a high-stakes testing program. The special challenges of secure and equitable administration of performance exercises are met with a systematic approach, attention to detail, and due concern for candidates' needs. After the test, the focus is on providing accurate, timely, and informative scoring, analysis, and reporting that can fulfill the important informational goals of the program.

High Standards with Adequate Support

Many aspects of the ICTS provide substantial support for examinees and educator preparation institutions, both before and after testing. The program assists candidates by providing substantive information regarding the required knowledge base and skills that are at its core. This information is provided through study guides that contain the test frameworks and objectives upon which the tests have been built, sample questions to familiarize candidates with test item formats, specifics about the test administration, suggested sources of further support, and other helpful information.

Furthermore, the score reports that candidates receive after testing are designed to provide more than notification of pass/not pass status. Score report feedback includes specific designation of areas of strength and weakness relative to the major knowledge domains assessed. With this information, candidates can focus their remediation, if necessary, on domains where their performance was less strong.

Providing materials to institutions to facilitate their preparation of candidates is another part of the ICTS approach. Institutions receive information about test content so that they can review their programs and ensure their courses and curricula address the knowledge and skills that candidates are expected to demonstrate through the examination process and so that they can advise students on appropriate courses of study to pursue. In addition, institutions receive reports on individual and aggregate student performance; this information is especially helpful to institutions seeking to modify their programs to better meet educational needs.

The result of this informational process is that candidates are aligned in their preparation efforts with the research-based, technically sound, and professionally determined definition of teaching

embodied in the ICTS frameworks. Institutions of higher education can align their requirements with that definition as well.

In short, the ICTS is an important link in the alignment of state expectations for educators, the content of college and university educator preparation programs and curricula, candidate learning in the educator preparation programs, educator performance on the job, and student achievement in the classroom.

Continued Test Updating

A good examination program cannot remain static in a changing world and in a dynamic environment such as education. In particular, the ICTS exists in an environment of reform in Illinois that affects the classroom, the educator, and educator preparation institutions. Given the alignment that the ICTS seeks with these elements of education in Illinois, the ICTS is designed to change, as needed. Built into the ICTS is a process of reviews of assessment objectives, specifications, test items, passing standards, and overall performance to ensure the continuing relevance and appropriateness of the system. The ICTS has developed over time and will continue to change as needed to ensure its continued role in support of educational excellence in Illinois.

THE TEST DEVELOPMENT PROCESS



The test development process for the examinations involved several steps, designed to ensure that the resulting examinations are aligned with the relevant Illinois educator standards, consistent with Illinois educational practices and curricula, reflective of knowledge and skills judged important for the job of an educator, accurate and valid, and free of bias. Establishing a sound basis in law or state policy for examinations such as the ICTS is an important component of test validation. Anchoring the content in program and policy materials that govern the state's implementation of the licensing function is essential for a certification test. As the *Standards for Educational and Psychological Testing* (1999) state: "The first task for test developers is to specify adequately the universe of content that a test is intended to represent, given the proposed uses of the test." The flowchart on the following page provides an overview of the ICTS test development process.

Program Planning

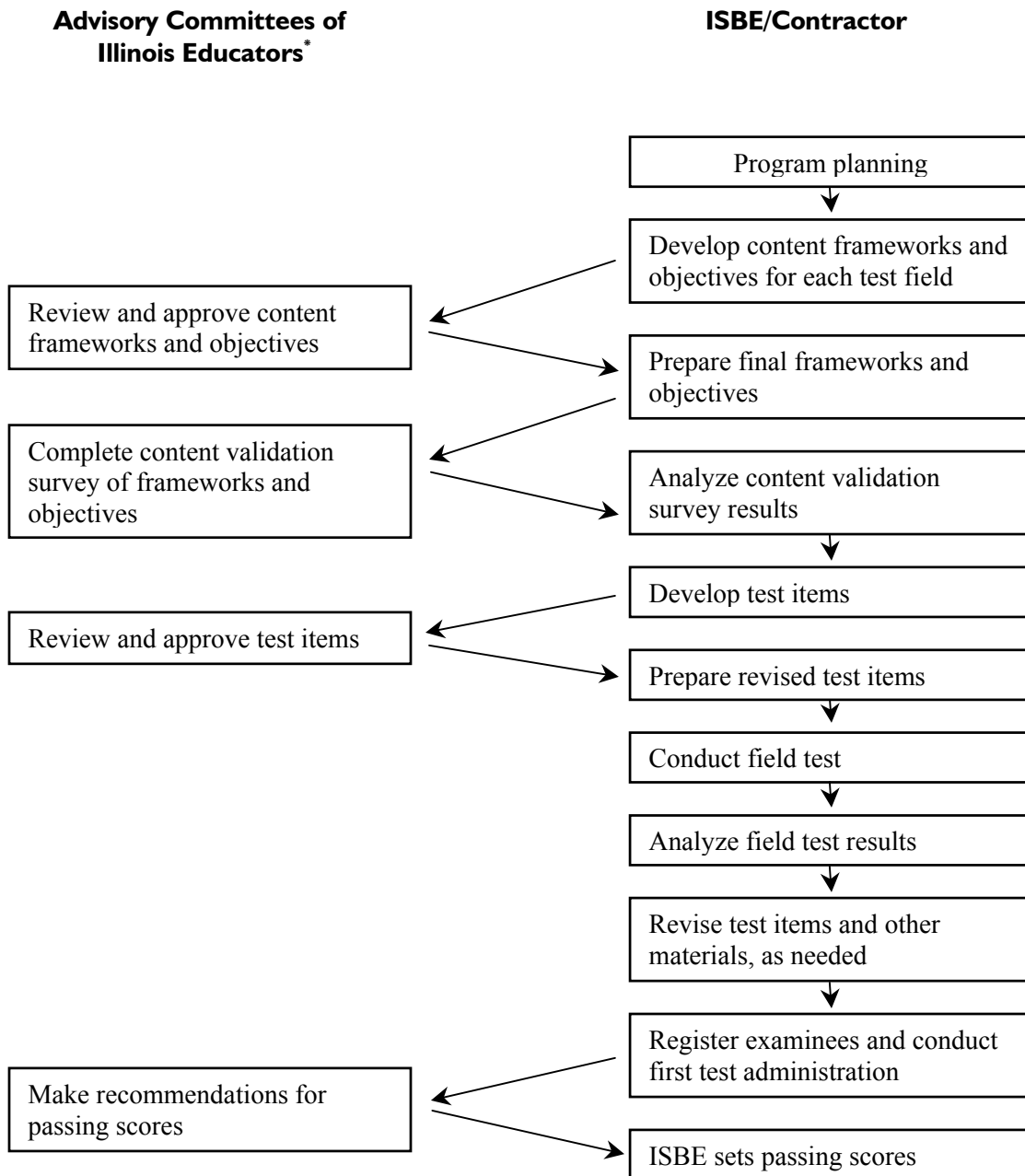
Planning was initiated at the beginning of the program and has continued throughout its development and administration. ISBE control in planning and design issues was essential to the development and implementation of a program that fits the requirements and satisfies the needs of Illinois. Policies, procedures, and materials for development and administration were designed to match Illinois goals for its assessment system.

A Technical Advisory Committee (TAC) was constituted for the review of test development and test administration activities. The TAC includes educators with expertise and practical experience in the development and implementation of certification or licensure testing programs for professionals. The TAC focuses on the design and development of procedures for accomplishing the major technical tasks that the development of a certification testing program entails. The TAC advised ISBE on the development and review of draft test frameworks, the content validation survey, the development and review of draft test items, field testing of test items, setting passing scores, constructed-response item scoring, test form equating, gathering of validity and reliability evidence, and other psychometric matters. The recommendations of the TAC are reviewed by ISBE, with ISBE having final approval authority for assessment program plans and materials.

A Bias Review Committee (BRC) that includes approximately 30 members has been in place for the ICTS program since its inception. The BRC has added new members from time to time, as some members have relinquished their membership and new members have been appointed by ISBE. The BRC includes public school teachers, school service personnel, school administrators, teacher educators, and others who have an interest in reviewing educational materials and processes for potential bias and for ensuring diversity.

Illinois Certification Testing System

Test Development Process



* Advisory Committees include Content Advisory (one in each field), Technical Advisory, and Bias Review committees, as well as content validation survey participants.

The BRC is an independent review committee focusing especially on bias and diversity issues, typically reviewing materials shortly before the materials are reviewed by the Content Advisory Committees (CACs). The BRC comments and suggestions are communicated to the CACs, who consider them and make any necessary revisions in order to address bias-related concerns or to make the test materials more inclusive of the diversity of Illinois.

CACs of up to 20 members were constituted for *each* new test to be developed, with somewhat fewer members for teaching fields with small numbers of certified and practicing Illinois educators. The CACs include public school teachers, school service personnel, school administrators, teacher educators, and other college faculty who represent the diversity of the state on several dimensions, such as teaching area, teaching level, years of experience, geographic location, ethnicity, and gender.

ISBE identifies and recruits committee members, with the contractor's assistance. Many committee members have had experience working with and/or supervising entry-level educators. Many have had experience with item reviews during test development activities for other testing programs.

Development of Test Frameworks

An individual test framework, which organizes a field into subareas of content described by objectives, was developed for each field to serve as an explicit foundation for test content. The test frameworks not only guided test development but also were designed to assist candidates in their preparation for the examinations. The text of all objectives was reviewed and approved for the program by Illinois educators and ISBE. The objectives are made available to examinees and to educator preparation institutions.

For each field, the Illinois Content Area Standards for Educators and other relevant education and policy materials used in Illinois were consulted to develop the test frameworks and objectives. This was done to ensure that the frameworks reflected appropriate content. The materials consulted included state curriculum standards for classrooms, program descriptions from Illinois educator preparation programs that prepare candidates for each certificate, textbooks and other materials in use in Illinois classrooms and educator preparation institutions, relevant Illinois statutes and regulations, professional literature, and similar documents.

Draft frameworks (comprising subareas, objectives, and descriptive statements that amplify the objective statements) were prepared by the contractor for review.

- Each subarea represented a major domain of knowledge and skills that comprised a set of objectives.
- Objectives for the content-area tests addressed knowledge as defined by the Illinois Content-Area Standards for Educators.
- Objectives for each framework were also defined by descriptive statements further specifying areas of knowledge and skills to be assessed by each objective.
- Each objective in the test frameworks was correlated to relevant Illinois laws, ISBE guidelines, and field-specific standards for Illinois educators, providing empirical evidence of the basis of the objectives in Illinois policy and/or practice.

- Interviews were conducted, as necessary, with Illinois educators to ensure that the test frameworks accurately captured the central elements of professional practice in Illinois.

The draft test frameworks were then reviewed by the BRC and the CACs.

The BRC, composed of Illinois educators appointed by ISBE, reviewed and revised the draft frameworks, primarily from a perspective of bias prevention and for representation of the diversity of the Illinois population.

Following review by the BRC, the CACs reviewed the draft test frameworks and the preliminary proposed tables of test specifications. Each CAC reviewed the draft test framework and revised it to improve its definition of the test content. Since 2002, approximately 700 Illinois public school educators and college and university faculty participated in this process.

The proposed frameworks, as revised, were further validated by a content validation survey.

Content Validation Survey

To verify that the objectives on which each ICTS test was constructed reflected actual educational practice in Illinois, the contractor conducted a content validation survey consisting of the following activities.

- The objectives from the test frameworks were formatted into two content validation surveys: one for public school educators and the other for college educator preparation faculty.
- Samples of classroom educators for each test from the APT and content-area fields covered were selected to receive the content validation surveys. These samples were chosen to reflect geographical regions and ethnic diversity. Samples of college faculty were selected to receive the surveys for their fields of instruction.
- Surveys for classroom educators were distributed through schools. The college faculty surveys were distributed through the dean's office at each institution that prepares educators.
- Over 9,000 Illinois educators returned usable survey responses—approximately 7,000 public school educators and 2,000 educator preparation faculty.
- Follow-up contacts were made to survey recipients in an effort to obtain appropriate response rates.
- Results from the content validation study were analyzed, and only those objectives that were rated to be important to the job of an Illinois educator were eligible to be measured by the examinations.

Assessment Specifications

Specifications that serve as a link between the objective statements and actual test items were developed for the program. Assessment specifications guide test content by serving as instructions and guidelines to test development teams of Illinois educators on the BRC, the CACs, and ISBE. The specifications include a description of the test formats used in each field, the number of test items per objective and per subarea, the number and type of constructed-response assignments, the test subarea to which each assignment is linked, and the proportion of the total test score allocated to each test subarea and to each constructed-response assignment.

- Draft specifications were prepared by the contractor for review.
- The draft specifications were reviewed and revised by the CACs.
- The proposed specifications, as revised, were submitted to ISBE for final review and approval.

Examination Materials Development

For each field, test items were developed, in accordance with the assessment specifications and corresponding to the objectives approved for initial testing by ISBE and validated by the content validation survey. Materials comprised several assessment approaches, as appropriate for each field.

Draft materials were developed by teams of individuals combining expertise in the content of the field, in bias detection and prevention, in test development, and in psychometrics. Development teams were given training in the specific requirements for the examinations, including orientation in the assessment specifications approved by the Illinois State Board of Education and in the updated *Bias Issues in Test Development* manual, which was reviewed and modified, as needed, by Illinois educators in time to begin item development. Content experts in Illinois were contacted as needed to obtain information and clarification of the knowledge and skills needed to practice in Illinois public schools.

The contractor prepared a draft preliminary scoring plan to describe the process that will be followed to produce scores for constructed-response assignments, to combine those scores with scores on multiple-choice items, and to ensure score comparability on different forms of each test that contains different items. Drafts of the preliminary scoring plan were provided to ISBE and to the TAC for review prior to committee review meetings. Following ISBE and TAC review, the contractor revised the scoring plans in preparation for bias and content review.

The contractor prepared drafts of the assessment materials, including the test items, based on the validated test objectives, preliminary proposed tables of test specifications, program background information, scoring plans, input provided by the committees at the test framework review meetings, the results of the content validation surveys, and the final test frameworks.

Item Review Meetings

Draft test items for each test are reviewed by both the BRC and the CAC associated with the test at item review meetings. Reviews of the items are detailed; all draft items are open for revision, replacement, or deletion according to the consensus judgments of the committee members.

The contractor prepared training and review materials, provided training for the review process, and facilitated the meetings. The committees were provided item review criteria (e.g., match to test objective, accuracy, freedom from bias, job-relatedness of content) and were asked to review items according to the criteria provided. Each CAC was also provided the results of the BRC recommendations for revising any items.

All committee changes were recorded and documented by each committee recorder. The contractor revised test materials as directed by the committees and documented by the recorder.

Field Testing

Test items that were reviewed and revised, as necessary, by the BRC and the CACs were field tested among students in Illinois educator preparation programs. The field test took place at several sites in Illinois and was designed to gather information about test item performance. An effort was made to represent the geographic and ethnic diversity of Illinois among field test participants.

- The test items were formatted into booklets to be used by field test participants. Support materials were also produced to facilitate administration of the field test.
- Arrangements were made with field test sites, and support and training were provided for field test administrators.
- With the help of ISBE and campus contact persons, volunteers were recruited from the student populations of Illinois educator preparation institutions to take one or more field tests.
- After the field test was conducted, test items were scored and results were analyzed to provide statistical information on test items. Analyses permitted consideration of the technical qualities of the test items and of potential item bias.
- The field test results were prepared for review by ISBE. ISBE considered the test items in light of the results, provided final review and approval of the test items, and, where necessary, noted items for deletion from the item banks.

Across the tests, it is estimated that over 12,000 volunteers participated in field tests.

First Administration of New Tests

Following the review of the field test results, some items were deleted from the test item banks if they did not perform well statistically or if based on the final resolution of items identified from analyses of performance of different groups (e.g., gender, ethnicity) of Illinois candidates. Any item deletions were approved by ISBE.

A sample of the test items from the item bank for each field was selected to appear on the first operational test administration. The test items were blueprinted in a manner that was consistent with the table of test specifications that had been previously approved by both the CAC for each field and by ISBE. In blueprinting the first test form, an effort was made to ensure appropriate breadth of coverage of the complete set of validated test objectives. As an additional quality control check, each draft test form was then reviewed by a content expert to help ensure that each test item was accurate, free of editorial errors, and provided no clues to candidates that would help them to correctly answer other items on the test form.

The first administration of new tests is consistent with the standardized test administration practices that have been consistently employed for the ICTS program. Following the first administration of new tests, the statistical performance of each test item and the total test statistics are reviewed. Any test items that do not perform well statistically are identified, and these items are assigned "nonscorable" status and do not affect candidates' test scores.

Item Revalidation and Passing Score Review

Following the first administration of each new test, a meeting is conducted involving Illinois educators and teacher educators from the CACs, as well as other educators who had not previously participated in the test development process, in order to obtain further validity evidence regarding the test items and to obtain passing score recommendations for each test field. These educators provide independent judgments as to the performance on each test item expected of individuals who would be considered to have the "just acceptable" level of knowledge and skills required to perform the job of an educator receiving an initial teaching certificate in Illinois.

This is a multistage process that typically involves the following steps:

- an overview of the item revalidation and passing score review procedures
- extensive training in understanding the expected item level performance of the "just acceptable" candidate
- practice in providing test item passing score ratings
- Round One passing score ratings
- feedback on Round One passing score ratings and additional item statistics
- Round Two passing score ratings

Across content-area tests and the APT tests, approximately 900 Illinois educators will participate in the item revalidation and passing score review process.

Following this meeting, panel-based recommended passing scores are compiled and presented to ISBE.

ISBE then convenes a meeting of the BRC to review the CAC-based recommended passing scores and provide its own consensus passing score recommendations. These BRC recommendations, in turn, are reviewed by the State Teacher Certification Board (STCB). The STCB then provides passing score recommendations to the State Board of Education, which sets the passing score for each test field.

TEST ADMINISTRATION



The goals of test administration are consonant with those of the development process: security, fairness, and convenience for candidates. The Illinois Certification Testing System was designed to meet these requirements in its registration, test administration, test scoring, and score reporting procedures.

The Registration Process

ICTS registration procedures provide candidates a high degree of convenience without compromising the security of the program or the efficiency of the administration. Registered examinees receive an admission ticket that provides information about the location of the test site, a seat number, and the time of the test session.

Candidates may register by mail or the Internet. Internet registration is available 24 hours per day, 7 days per week, and registration is possible up to four days before the test date. Telephone registration is also available during emergency registration.

Candidates and educator preparation faculty members have available to them advance information regarding the testing program. The ICTS Registration Bulletin describes the tests and provides necessary information and forms to candidates. The bulletin is updated annually to include new test dates and any changes in policy or procedures.

Candidates and institutions can obtain study guides for each of the test fields. Study guides provide candidates with background information about the ICTS, guidance on how to prepare for and take the examinations, a complete list of objectives and descriptive statements that define the content of the assessment instruments, and sample test items.

Test preparation materials are available on the Web. The registration bulletin, study guides, and test frameworks can be downloaded in portable document format. Forms for adding a test, changing registration, and requesting a refund are available in Web-interactive form, thus eliminating the delay attributable to mail services. A Web-interactive form is provided for candidates to pose individual questions as well, providing quick and, in some cases, virtually immediate replies.

Test preparation materials are also available at no cost by calling an 800 customer service number.

Test Administration

The ICTS tests are administered several times per year at sites throughout Illinois. Sites are carefully screened and selected based on predetermined criteria relating to test security,

accessibility to individuals with disabilities, and examinee comfort. At each site and for each administration, examinees receive standardized instructions for taking the test.

Two general types of alternative test administrations are possible. Alternative test *dates* are provided for those candidates whose religious convictions prohibit them from taking tests on Saturday. Alternative test *arrangements* are provided for examinees who are unable to take the tests under standard conditions, due to a documented disability or because English is not their first language.

Test administrators are trained extensively and provided with a test administrator manual as a resource to use before and during the testing sessions. The aim of the training process and the manual is to ensure a secure, efficient, and professional administration for all candidates. To ensure effective operation of each administration, and to benefit from past experience, established testing procedures are reviewed before each administration. Test quality monitors make periodic visits to each test site to help ensure that test administration standards are maintained.

Test Scoring

Scoring policies for the ICTS include the constructed-response assignment scoring scales, the proportion of a candidate's total test score derived from each test component (i.e., constructed-response and multiple-choice item sections), and rules for combining scores from different components of the tests (i.e., a compensatory model of scoring across test sections), as approved by the Content Advisory Committee and ISBE. All ICTS tests are scored under secure conditions, and test results are produced for candidates, educator preparation programs, and the state within weeks of test administration.

As candidates' answer documents are inventoried, the contractor processes and analyzes the data to produce scores and prepare score reports. Machine-scorable answer sheets are checked before scoring to make sure they are complete and machine-readable. Then they are scanned and electronically scored, based on the approved answer keys. The statistical results for each machine-scorable item on each test are generated before score reports are produced. The computer-generated scores are checked against a sample of hand-scored answer sheets to verify their accuracy.

An analysis of each item is conducted for each test form after each test administration and before individual score reports are produced. The purpose is to reverify the accuracy of the answer key. Items are accepted or identified for review based on item statistics.

The contractor scores constructed-response assignments using a focused holistic scoring process. Each response is scored by multiple scorers. For higher-incidence test fields, each response is scored independently by two scorers, with additional scoring by a third scorer or Chief Reader as needed. For lower-incidence test fields, scoring is conducted by a scoring group of two or more scorers. Under the guidance of a scoring facilitator, the group arrives at a consensus score for each response.

Focused holistic scoring entails assigning scores based on an overall, holistic impression of the response, informed by a focus on performance characteristics that responses are expected to display. Scores typically range from a low of 1 to a high of 4 (with a separate code for blank or unscorable responses). The independent scorers' ratings are summed to yield a final score.

Scores that differ by more than one point are labeled discrepant and resolved by further readings, either by a third scorer or by the Chief Reader.

Focused holistic scoring is typically used for items intended to elicit an extended and/or complex response that must be judged according to several performance characteristics. The APT tests and some of the content-area tests (e.g., all of the foreign language tests and the Learning Behavior Specialist II tests) have constructed-response assignments of this type.

Qualified scorers in the relevant content areas meet to score these performance-type responses. Scorers are certified educators, education preparation program faculty, or recognized experts in the field, trained to score candidate responses consistently, fairly, and in accordance with the scoring scale. The identity of examinees is not disclosed to them.

Scorers must successfully complete scoring scale calibration activities during orientation before they are permitted to score responses. At points in the holistic scoring process scorers are recalibrated to the scale, typically through discussions of specific responses.

Procedures for scoring responses include the training of scorers through the use of multiple "marker responses" (which illustrate by example the quality of candidate responses at various score points), the use of multiple scorers scoring either independently (with a standardized procedure for resolving discrepancies in scores), or with a group consensus scoring process and the monitoring of scorers to ensure that their scores remain consistent with the scoring scale.

Score Reporting

Unofficial individual candidate scores are accessible on the Internet for most candidates on the score report date, which is four weeks from the test date. Official scores are sent by U.S. mail on the score report date.

Assessment results are provided to candidates and to educator preparation institutions in a clear, useful format. Candidates receive score reports that indicate their status (pass/not pass) and describe their performance in each of the major subject-matter subareas of the test. Candidates may use this information to determine areas in which they may require further study.

Test administration reports are distributed to institutions after each test administration. The purpose is to provide information promptly to institutions to allow them to monitor the performance on the ICTS of individual examinees and the total group of examinees who indicated their affiliation with the institution. Institutions may use this information to assist individual examinees and to modify their curricula to improve performance across test fields.

Annual results reports are provided at the end of each program year. The annual results report is intended for use by ISBE and the educator preparation institutions as one source of information regarding the preparation received by candidates who tested in the most recent program year. This information may act as a catalyst for the review of educator preparation programs in relation to the ICTS test frameworks, themselves aligned with the Illinois Learning Standards and the standards for Illinois educators.

Test Reliability

As a term used in testing, *reliability* may be defined as "the degree to which test scores are consistent, dependable, or repeatable, that is, the degree to which they are free of errors of measurement" (AERA/APA/NCME, 1999, p. 93). Every test can be expected to produce some measurement error; well-constructed tests produce a small amount of measurement error and generally yield consistent results from one measurement occasion (i.e., test administration) to another.

The process that was used to develop the ICTS tests contained features designed to ensure, to the extent possible, that the content and format of the tests would contribute to the stability of the scores derived from them.

Reliability is a property of test scores for a particular group of candidates, *not a fixed property of a test*. Many factors may affect statistical estimates of reliability, among them the following.

- the number of candidates for each test field for each test administration
- the self-selection of candidates for each test administration date
- the variability of candidates who test in each field
- the number of test questions on each test
- whether or not a test is comprised of different types of items (e.g., multiple-choice items and constructed-response assignments) or a single item type
- the homogeneity of test content (e.g., narrower range of content versus broad, varied range of content)

Each statistical procedure selected for the ICTS provides different information about the reliability of the tests. Measures are reported for the total test, the multiple-choice section, and the constructed-response section. However, because pass/not pass decisions are made based upon the total test score only, it is the total test reliability that is the focus of interest; other measures of reliability for portions of the test are presented for descriptive purposes only. When considering reliability indices for a single test section (multiple-choice or constructed-response), it is important to keep in mind that a section of a test is usually less reliable than the total test because the test section contains fewer test items than the total test.

The statistics that are of primary interest, therefore, are those that describe the consistency of pass/not pass decisions on the total test and the error of measurement associated with the total test.

- *Total Test Decision Consistency* (Breyer and Lewis, 1994). This is a single test estimate of total test decision consistency. It is reported in the range of "0" to "1" such that the closer the number is to "1," the more consistent (reliable) the decision is considered to be.
- *Total Test Standard Error of Measurement (SEM)*. This statistic serves as a measure of total test consistency and is more stable than total test reliability estimates.

Additional information about reliability estimates for the individual sections of tests (e.g., multiple-choice, constructed-response) is also provided (as descriptive characteristics of the test) but do not replace the total test decision consistency reliability estimates.

Reports to ISBE

The technical report for new tests is prepared after a full year of test administration data have been accumulated.

Annual technical reporting focuses on information at the test form level related to decision consistency. Additional statistics of a more traditional nature (e.g., KR-20) are also provided for descriptive purposes. However, the descriptive statistics are provided to assist the reader in understanding specific aspects of the program, such as the multiple-choice component, but they may not adequately describe the critical aspects of the overall program, such as decision consistency (pass/not pass).

The technical report provides statistics related to reliability estimates based on the current approaches accepted as industry standard, taking into account the unique characteristics of a certification program (e.g., criterion referenced, populations of substantially different sizes). As new approaches become available and accepted as the industry standard, these will be considered for reporting.

The following aspects of the testing program are also taken into account in preparing the annual technical report:

- The tests are criterion referenced.
- There are many tests in the program, each measuring different subject matter.
- There are multiple test administrations per year and candidates can select when to take and/or retake a test.
- The number of candidates per test varies across test fields and across test administrations.

Pass Rate Report

The annual technical report also includes a pass rate report. The pass rate report provides the following information by test for each test administration covered by the annual reporting period.

- *Initial pass rate information.* The number of candidates taking a test for the first time and the percent taking a test for the first time who achieved a score equal to or higher than the passing score.
- *Retake pass rate information.* The number of candidates retaking a test and the percent of the candidates who achieved a score equal to or higher than the passing score.
- *Overall pass rate information.* The total number of candidates taking a test during the reporting period and the percent who achieved a score equal to or higher than the passing score.

AVOIDANCE OF TEST BIAS



Equity for examinees is of concern in the ICTS program. Equity in a certification testing program refers to wording, content, and policies that give the examinees the same opportunity to demonstrate their knowledge of job-related content and skills regardless of gender, race, ethnicity, age, religion, nationality, national origin, sexual orientation, or disability or their cultural, economic, or geographic background. An important aspect of equity is that the test content is inclusive of the diversity of the Illinois population. Throughout the test development process, steps were taken to design and develop an equitable testing program.

The test development process incorporated reviews by experts in the content measured by the tests and in issues of equity in educational materials. Statistics gathered as part of the development process (e.g., the content validation survey, the field test) were used, where appropriate, to support and inform professional judgments on equity matters.

Under the supervision of ISBE, the following steps, among others, were taken by the test developers to ensure fairness and to guard against bias in the ICTS.

Job-Relatedness of Content

- The sources of information used in defining the content of each test were documents specifically related to the preparation and job content of Illinois educators.
- The content validation survey was used to establish an empirical link between test content and job content for examinees.
- For each test field, ISBE reviewed the results of the content validation survey to select test objectives that reflect important elements of an educator's responsibilities in Illinois.

Test Development Procedures

- ISBE reviewed development procedures to identify issues of potential concern to groups in the examinee population.
- The items for the examination program were developed by individuals oriented on ways to avoid bias in testing.
- A manual, *Bias Issues in Test Development*, was used as an orientation tool for persons involved in the test development process.

Subject-Matter and Equity Reviews

- A Bias Review Committee was formed by ISBE and was convened several times to review the general process and products involved in the development of the testing program.
- The BRC reviewed the proposed test objectives, revising them as appropriate to eliminate any potential bias and also to ensure inclusiveness of content.
- The Content Advisory Committees reviewed the proposed test objectives and verified their appropriateness as the foundation of the tests for the initial administrations of the ICTS tests.
- The BRC reviewed items that were developed for the ICTS. Bias-related concerns were forwarded to the CACs, which were required to address them.
- Each CAC reviewed for potential bias the test items in its particular field. The CACs were constituted to reflect the racial, gender, ethnic, and regional diversity of Illinois.

Field Testing and Bias Analyses

- The test items were field tested to identify items that might need additional review and revision.
- Statistical analyses were conducted to detect potential bias in the test items that were field tested, where adequate data were available. In addition to reporting the percentage of examinees in each reporting group (e.g., by gender, ethnicity) who responded correctly to each multiple-choice item and the correlation between overall examinee performance on the set of field test items and on each item, analyses were prepared that were specifically designed to identify items for their review. Identified items were then reviewed by the BRC and ISBE.
- Analyses were prepared for constructed-response assignments that permitted consideration by ISBE of factors (e.g., gender, ethnicity) that may have appeared to contribute to significant differences in scores achieved by examinees within the field test sample. Items (including prompts used to elicit examinee content knowledge and skills) that performed differently for various reporting groups were then examined by ISBE and deleted, if necessary.

Support for Examinees

- Publicly distributed test objectives, which were reviewed for potential bias by Illinois educators, define the content upon which each test is based.
- Test objectives, sample items, and other useful information is made available to examinees in both electronic and paper study guides.

Item Revalidation and Passing Score Review

- At the item revalidation and passing score review meeting, CACs, augmented by other educators, were explicitly directed to review items for potential bias. Items rated as potentially biased were deleted from the test item bank.

Test Administration

- Policies relating to administration of the ICTS were designed to ensure uniform and bias-free procedures for examinees.
- The ICTS tests are not speeded, so examinees with test anxiety or other disabilities should not experience time pressures in testing.
- Score reports are provided to examinees that highlight their performance in the major subject-matter subareas on the test, in order to help them identify areas of strength and areas where additional study may be needed.
- Illinois educator preparation programs receive reports describing the performance of their students. These reports can help faculty assist those who may need remediation.
- Examinees are permitted to retake the tests they have not passed. There is no limit to the number of times a test can be retaken. This policy provides encouragement for examinees who don't initially pass to continue to study to achieve their goal of obtaining educator certification.

ONGOING ACTIVITIES



Meetings and discussions relative to keeping the testing system current, modern, and effective are conducted between ISBE and the contractor during the normal course of the program. ISBE is committed to ensuring that the ICTS reflects current standards and classroom curricula by conducting reviews of the program to ensure that the tests reflect the Illinois Learning Standards, the Illinois Professional Teaching Standards and Content-Area Standards for Educators, and national standards.

ALPHABETICAL LIST OF ILLINOIS CERTIFICATION TESTING SYSTEM TESTS



Name of Test	Test Number
Agricultural Education	170
Assessment of Professional Teaching: Birth to Grade 3	101
Assessment of Professional Teaching: Grades K–9	102
Assessment of Professional Teaching: Grades 6–12	103
Assessment of Professional Teaching: Grades K–12	104
Basic Skills	096
Business, Marketing, and Computer Education	171
Chief School Business Official	185
Computer Science	038
Dance	140
Director of Special Education	180
Drama/Theatre Arts	141
Early Childhood Education	107
Early Childhood Special Education	152
Educable Mentally Handicapped	004
Elementary/Middle Grades	110
English as a New Language	125
English Language Arts	111
English Language Proficiency	055
Family and Consumer Sciences	172
Foreign Language: Chinese (Cantonese)	136
Foreign Language: Chinese (Mandarin)	126
Foreign Language: French	127
Foreign Language: German	128
Foreign Language: Hebrew	129
Foreign Language: Italian	130
Foreign Language: Japanese	131
Foreign Language: Korean	132

(continued on next page)

Name of Test	Test Number
Foreign Language: Latin	133
Foreign Language: Russian	134
Foreign Language: Spanish	135
Guidance	015
Health Careers	173
Health Education	142
Learning Behavior Specialist I	155
Learning Behavior Specialist II: Behavior Intervention Specialist	156
Learning Behavior Specialist II: Bilingual Special Education Specialist	157
Learning Behavior Specialist II: Curriculum Adaptation Specialist	158
Learning Behavior Specialist II: Deaf-Blind Specialist	159
Learning Behavior Specialist II: Multiple Disabilities Specialist	160
Learning Behavior Specialist II: Technology Specialist	161
Learning Behavior Specialist II: Transition Specialist	162
Learning Disabilities	006
Library Information Specialist	175
Mathematics	115
Music	143
Physical Education	144
Physically Handicapped	011
Principal	186
Reading Specialist	176
Reading Teacher	177
School Counselor (effective July 2005, will replace field 015)	181
School Nurse	018
School Nurse (effective July 2005, will replace field 018)	182
School Psychologist (effective July 2005, will replace field 016)	183
School Psychology	016
School Social Work	017
School Social Worker (effective July 2005, will replace field 017)	184
Science: Biology	105
Science: Chemistry	106
Science: Earth and Space Science	108
Science: Environmental Science	112
Science: Physics	116

Name of Test	Test Number
Social Science: Economics	109
Social Science: Geography	113
Social Science: History	114
Social Science: Political Science	117
Social Science: Psychology	118
Social Science: Sociology and Anthropology	121
Social/Emotional Disorders	007
Speech-Language Pathologist: Nonteaching	154
Speech-Language Pathologist: Teaching	153
Superintendent	187
Target Language Proficiency—Arabic	057
Target Language Proficiency—Cantonese	058
Target Language Proficiency—Greek	059
Target Language Proficiency—Gujarati	060
Target Language Proficiency—Hindi	061
Target Language Proficiency—Japanese	062
Target Language Proficiency—Korean	063
Target Language Proficiency—Lao	064
Target Language Proficiency—Mandarin	065
Target Language Proficiency—Polish	066
Target Language Proficiency—Russian	067
Target Language Proficiency—Spanish	056
Target Language Proficiency—Urdu	068
Target Language Proficiency—Vietnamese	069
Teacher of Students Who Are Blind or Visually Impaired	150
Teacher of Students Who Are Deaf or Hard of Hearing	151
Technology Education	174
Technology Specialist	178
Trainable Mentally Handicapped	005
Visual Arts	145

REFERENCES



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Breyer, F., & Lewis, C. (1994). *Pass-fail reliability for tests with cut scores: A simplified method*. Princeton, New Jersey: Educational Testing Service.



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