Principles of Fairness:
An Examination Guide for
Credentialing Boards

Introduction

Certification and licensure examinations (or generically, **credentialing** examinations) may be subject to professional standards set forth in the following key documents:

- *Standards for educational and psychological testing*, developed jointly by the American Educational Research Association (AERA), the American Psychological Association (APA), and the National Council on Measurement and Education (NCME), which applies to testing in general, and includes a chapter on testing in employment and credentialing.[1]

- *Standards for the Accreditation of Certification Programs* of the National Organization for Competency Assurance, developed by its National Commission for Certifying Agencies, for the approval of certification tests.[2]

- *Guidelines for Computer-Based Testing*, developed by the Association of Test Publishers for those developing and administering computer based tests.[3]

- *Code of Fair Testing Practices in Education*, developed by the Joint Committee on Testing Practices.[4]

Principles of Fairness: An Examining Guide for Credentialing Boards has been developed to address the specific needs of credentialing examinations. *Principles of Fairness* is a joint effort of the Council on Licensure, Enforcement, and Regulation (CLEAR) through its Examination Resources and Advisory Committee, and the National Organization of Competency Assurance (NOCA) through its National Commission for Certifying Agencies (NCCA).

Principles of Fairness is intended to apply to credentialing examinations. Whether a test is developed and administered by the board itself or by an outside testing company, and whether a test is written, practical (i.e., performance), or oral format, the principles listed are designed to be reasonable and, in many cases, common sense. Their purpose is to facilitate boards in promoting fairness.

Principles of Fairness recommends testing procedures and practices designed to enable the candidates to attain optimal performance on the test. Emphasis is placed on providing essential information to prepare the candidates **before** the test, providing a test administration environment and procedures conducive to good performance **during** the test, and providing timely and accurate scoring, standard setting, and reporting **after** the test. The sequence of before (I), during (II), and after (III) is the basis for the major divisions of this document.

Credentialing examinations are "high stakes" tests, designed to protect the public by assuring that individuals have adequate knowledge and/or skill. Therefore, the primary responsibility of credentialing boards is to ensure the validity, reliability, security, and integrity of examinations. However, these are "high stakes" tests for candidates as well. For many individuals, a long-term investment of time, money, and effort has been expended to prepare for a particular profession or occupation.

Failure to pass a credentialing examination may be a major career setback. Considerable financial loss and perhaps, the need to change careers may result. Therefore, failing an examination should be the result of only one phenomenon: inadequate knowledge or skill. Failure based on inadequate information about the testing process, for example, is unfortunate for both the candidate, in terms of lost income, and for the public, in terms of lost access to a competent professional. Thus, candidates, the public, and the professions are beneficiaries of a fair testing process.

Principles of Fairness is a product of review and input by many individuals and organizations affiliated with CLEAR and NOCA. The principles presented are those for which there appears to be a general consensus of professional opinion.

This document was originally developed in 1993 and underwent review and revision in 2002. Changes with the revised edition included adding reference to computer based testing, which is rapidly gaining acceptance in the certification industry. This document is expected to be reviewed and updated continually in response to new developments and new thinking in the field of credentialing examinations. Future updates of *Principles of Fairness* are likely to reference other emerging developments in the creation, administration, and analysis of credentialing examinations.

CLEAR and NOCA wish to encourage credentialing boards to promote test fairness assertively. Boards that wish to obtain copies of *Principles of Fairness* should contact either CLEAR (859/269-1289), or NOCA (202/857-1165). Single copies are available at no charge. Larger orders are available at cost.

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I. Before the Test

The Foundation of test fairness is understanding the nature of the terms and conditions that govern the test. Candidates should have this information **before** the test in order to plan and prepare adequately. Credentialing boards should publish and distribute a candidate guide that contains all of the following information.

1. **Job- or practice-related test content**
   A test content outline or blueprint conveys the scope and emphasis of the examination. The outline should list the major content headings of the test, and the percentage of questions administered in each. Test content should focus on knowledge and skills required for competent practice. The basis for the test content outline (e.g., a practice analysis) should be described.

2. **Test Characteristics**
   Credentialing boards should specify whether the format of the test is written, oral, practical (i.e., performance) or computer-based. A sample test question representing each question format, as well as a sample answer sheet should be provided also where applicable. When the examination is administered on computer, information should be provided about the computer test including sample screens and information regarding opportunities to practice using the computer.

3. **Test Preparation Strategies**
   This information overlaps with the use of the test content outline and test blueprint. Study references may be listed, as well as possible test-taking strategies (e.g., use of test time).

4. **Change of test content**
   Candidates should be informed in advance regarding when and how a test changes in content, format, difficulty, or length.

5. **Test question evaluation**
   Credentialing boards should indicate how test questions (i.e., items), particularly those used for the first time, are evaluated. Board policies for identifying and handling flawed or defective test items should be indicated.

6. **Bias**
   Credentialing boards are responsible for assuring that the test is fair to population subgroups. Policies employed to address this issue should be indicated.

7. **Time Limits**
   Candidates should be informed about the amount of testing time provided for each portion of the examination. Where test times may vary (i.e., computer adaptive testing), candidates should be provided sufficient information regarding the length of the exam and why test times vary.

8. **Scoring**
   This information should include whether questions are equally weighted, and if there are penalties for incorrect responses. The types of test results reported should be indicated also (i.e., number correct, percentage, scaled, or pass-fail only). If non-scored trial questions are administered, their inclusion should be noted.

9. **Pass-fail standard**
   There are three important issues here. First, candidates should be informed of the pass-fail standard in advance of the test, if possible. Second, the basis or procedure for determining the pass-fail standard should be provided. This includes the type of judgment used, and the types of participants involved in the process (e.g., practitioner, academician). The standard should be based on a reasonable level judged to be needed for competent and safe practice. Third, information should be given regarding the existence of one or multiple pass-fail standards, and options available to failing candidates for repeating portions, rather than the entire examination.

10. **Reporting test results**
    Credentialing boards should indicate when test results will be released to candidates, and the nature of the results reported. The test result information should include the pass-fail outcome and pass-fail standard, and may include the obtained total test score, the scoring scale (if applicable), and whether any subscores or other related information is reported.

    These latter data should be provided to all failing candidates, and may be reported to passing candidates. However, some boards have observed that these data have been used inappropriately by third parties in evaluating the credentials of passing candidates. Therefore, despite the desirability of test and subscore disclosure to all candidates, test results reported to passing candidates do not have to be as extensive in detail as the results reported to failing candidates.

11. **Registration**
    Credentialing boards should announce and disseminate information about registering for the examination well before any deadline dates. Procedures for applying, including deadlines, eligibility criteria, availability of reasonable accommodations for persons with disabilities, fees, cancellation, refunds, and test

center locations, should be provided also.

12. Test administration

This information includes the time when candidates should arrive at the test center, the amount of time required for checking in, when the test actually begins and ends, and policies for late admission. Credentialing boards should be aware of days of religious observance and avoid scheduling tests on those days, when possible. Alternate test dates for religious observers may be needed also.

13. Test center services

Candidates should be informed in advance about availability of services at the test center (e.g., parking, food concessions).

14. Candidate identification

Candidates should be informed that they must present required identification at the examination site. Identification bearing a photograph is desirable.

15. Security

Candidates should be informed of their obligations regarding test security. Candidates should specifically avoid any collaborative or disruptive behavior during the test, removal of test material, and reproduction of test material. Duplicating test material may violate copyright laws. In addition, candidates should be informed of their obligations to report a suspected violation. Finally, candidates should be informed of score cancellation policies that the board may exercise if a security break is suspected or revealed.

16. Supplies/equipment/human subjects brought to the test

Candidates should be informed about their obligations and options for supplies, equipment, and human subjects brought to the test. Candidates should be informed about what resources are available and/or provided at the site, if any. Written examinations typically require candidates to bring #2 pencils with erasers. Some examinations allow candidates to bring calculators and/or reference books. For these tests, candidates need to know which types of calculators and/or reference books are permissible and which are considered unacceptable. For performance tests (i.e., practical examinations), candidates may be required to bring certain types of equipment or human subjects.

Credentialing boards should inform candidates of the consequences of failure to bring needed supplies, equipment, or subjects. Finally, candidates should be informed of any items **not** permitted, any prohibitions against sharing equipment and/or supplies, and the consequences of incidents during the test, such as malfunction or breakage of equipment.

17. Candidates with disabilities

Credentialing boards should comply with the Americans with Disabilities Act (ADA) of 1990. The ADA obligates boards to provide an accessible test site to candidates with documented disabilities, and reasonable accommodations of test administration procedures to enable such candidates to demonstrate accurately their knowledge and skill. Credentialing boards should refer directly to the ADA for details regarding compliance.

18. Candidate challenges and appeals

Candidates should be informed of the extent to which they may review their examination performance, and the process for filing and claim of examination error or other challenge. This includes what may be expected from the process and outcome. Other available types of score verification, such as hand verification of computer scoring, should be described. Retest policies and procedures should be provided also.

II. During the Test

The primary goal of fairness during the test is to enable candidates to demonstrate fully their knowledge and skill. To promote this goal, care must be taken to ensure that the environment and testing procedures are conducive to good performance.

1. **Physical site**
   The test center should be well lit, ventilated, free of distracting noises, and have conveniently located restrooms. Upon request, the test center should be accessible to candidates with disabilities. For written examinations, candidates should be provided smooth writing surfaces and adequate space to work. In addition, sufficient space should be provided between candidates to promote privacy, and prevent collaboration.

2. **Personnel**
   Proctors and examiners should be impartial and well trained in the test procedures so that candidates are treated alike. Proctors and examiners should provide uniform and clear instructions to all candidates, and be trained carefully to distinguish acceptable from unacceptable issues that may be discussed with candidates. The ratio of proctors and examiners to candidates should be sufficient for effectively monitoring the test examination environment.

   For some practical examinations, additional human subjects participate as patients or clients. Care should be taken to assure the safety and dignity of the subject and the candidate. In addition, the subjects' physical or physiological characteristics should be comparable, such that candidates are not disadvantaged by a specific participant. Subjects should be impartial and trained for their specific roles to avoid facilitating or hindering any candidate.

3. **Security**
   Security policies and procedures should be designed to prevent premature access to test questions, collaboration during the test, or unauthorized notes from being used or taken. These occurrences may invalidate test scores and jeopardize the integrity of the test. Appropriate procedures include secure storage of tests, secure packaging and shipping, careful and continuous proctor observation, policies for handling suspected cheating on site, and procedures for distributing and collecting test materials to minimize the potential opportunities for theft and loss.

4. **Test materials and equipment**
   Test booklets and answer sheets should be easy to read and understand. Candidates should be instructed to verify that all pages are present. Examiners' evaluation sheets for practicals should document scoring criteria clearly, and should be formatted to minimize the potential for tabulation errors. If equipment is provided to candidates for use during the test, it should be in proper working condition, with suitable replacement if breakage or a malfunction occurs. Candidates should be allowed to become familiar with the operation of the equipment.

5. **Administration**
   Examinations should be administered at the scheduled time with as few delays as possible. Policies concerning late admission and required identification should be adhered to at the site. Candidates should be apprised of procedures governing checking in and exiting, procedures during a possible emergency, and location and use of restrooms.

Examination instructions should be presented in a clear and straightforward manner, and all candidates should be allowed to ask questions for clarification. The instructions should include procedures for handling claims of examination error, but note candidate questions regarding specific test content that are not appropriate to answer.

Finally, starting and ending times should be identified clearly, and enforced. Where possible, a clock displaying the correct time remaining should be announced periodically, particularly near the conclusion of the test.

6. **Computer-based testing**
   There are issues specifically related to computer-based testing that should be considered. These include ensuring that items are protected from overexposure, that all test forms created are equivalent, that security issues associated with computer-based testing are considered, and that systems and procedures are in place to address technical or operational problems in examination administration.

III. After the Test

The testing process continues after the test is administered. The scoring, standard setting, and reporting tasks should be handled in a timely manner, yet be subjected to thorough quality control. Failure to handle these procedures accordingly can undo all preceding efforts to promote fairness.

1. **Test results reported**
    Credentialing boards and psychometricians differ regarding the type of test results to report. A range of test results that may be reported is discussed in *Principle I, #10.*

2. **Accuracy of scoring**
    Scores should accurately reflect the points received by the candidate. Candidates should be able to request verification of their score, such as by handscoring or review of test performance. Scoring alterations as a result of a candidate's identification of an error should be applied to all candidates whose pass-fail status may be affected, not only to the candidate who discovered the error.

3. **Timeliness of reporting test results**
    Test results should be reported as soon as reasonable after the administration of the test, as professional plans may be contingent on the results. Reporting deadlines listed in the candidate guide should be met.

4. **Confidentiality of test results**
    Credentialing boards or their agents should release test results only to the candidate and only in writing. No other individuals or institutions should receive the scores identified by candidate name without the candidate's written permission.

5. **Use/misuse of test results**
    Credentialing boards are responsible to promote the use of results only for their intended purposes. Information regarding appropriate use of test results should be provided to those who receive the data. Researchers and program evaluators should be made aware of the purpose and design of the test if results are provided to them.

6. **Record retention**
    Candidates should be made aware of retention policies. Notice should be provided to the candidate if test outcome records become unavailable after a certain time, as this may affect legal documentation and one's credentialed status. Original documentation of examination performance, such as

answer sheets and product fabrications (for practical examinations), should be retained for at least as long as the candidate has a legal right to challenge the examination results. Subsequently, answer sheets and grading forms (for practicals) may be stored in archival form (e.g., as microfiche).

7. Re-examination
Failing candidates should be permitted the opportunity to be re-examined at a future date, and should be informed of the procedures for doing so. The test for repeating examinees should be the same as, or equivalent to, the test for first-time candidates, and meet the same standards of development and administration.

Repeating examinees should be expected to meet the same test performance standards as first-time examinees, but should not be identified as repeaters at the examination, if possible. If a practical examination is administered, different examiners than those who evaluated the candidate's prior performance should serve, if possible.

8. Candidate challenges and appeals
Refer to *Principle I, #18.*

9. Reporting summary of test results
The credentialing board should publish statistical data highlighting important test outcomes. These data, including the mean, pass-fail score, and pass-fail rate, should be available to candidates, the public, and the profession.

Footnotes

1. American Educational Research Association, American Psychological Association, and National Council on Measurement in Education (1999). *Standards for educational and psychological testing.* Washington, DC: American Educational Research Association. (Mailing address: American Educational Research Association, 1230 17th Street, NW, Washington, DC 20036).

2. National Commission for Certifying Agencies (2002). *Standards for the Accreditation of Certification Programs*. Washington, DC: NCCA. (Mailing address: NCCA, 1101 Connecticut Avenue, NW, Suite 700, Washington, DC 20036).

3. Association of Test Publishers (2002). *Guidelines for Computer-Based Testing.* Washington, DC: ATP (Mailing address: ATP, 1201 Pennsylvania Avenue, Suite 300, Washington, DC 20004).

4. Code of Fair Testing Practices in Education (1988) Washington, DC: Joint Committee on Testing Practices. (Mailing address: Joint Committee on Testing Practices, American Psychological Association, 1200 17th Street, NW, Washington, DC 20036).

5. Americans with Disabilities Act of 1990, 42 USC 12101 et seq. (Also: 56 FR 35734, 56 FR 35694, 56 FR 35592, 56 FR 36731)

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