

EDX: Examination Construction/Development

Examination Construction:

All examination materials are copyrighted material of the ABCN. No reproduction or duplication of the material is permitted, unless authorized by ABCN. All draft materials utilized by examination development committee members are kept secured in a double locked enclosed area and inventoried regularly. All committee members sign confidentiality agreements when generating and/or reviewing examination materials. Any material considered unusable is shredded prior to disposal.

All duplication of examination materials has been done in a closed environment under secure arrangements. All test documents utilized by exam candidates have unique control numbers. Any examination materials delivered to an examination site by courier service have an inventory list that is signed off prior to delivery and upon opening. Once used and repackaged for courier shipment, the inventory list is completed and initialed again.

All candidates are examined utilizing the same form of the comprehensive written examination. No equivalent forms of the competency evaluation are needed. The ACNB has established a policy that all examinations will be generated in English. Written translations of the competency evaluation are not available. No adaptations of the evaluation material are utilized at this time. Accommodations for candidates with disabilities are dealt with on an individual basis in accordance with the Americans with Disabilities Act and upon special request and validation of the disability. In accordance with American Psychological Association Standards for Test Administration, additional time may be provided to candidates who train in a language other than English, specifically in the practical/oral examination. Again, this must be requested in advance.

Test items utilized in the examination have been keyed to an examination blueprint and validated by the collective judgment of the subject matter experts utilized via committees. These committees include objective writers, case study writers, item writers and distractor writers. They validate items utilizing source documents from the chiropractic neurology and electrodiagnostic field. All of these activities have been conducted under the direction of a consultant psychometrician subject to standards acceptable to the National Organization of Certification Agencies/National Commission for Competency Assurance (NOCA/NCCA) (USA).

A final review panel has been utilized to review the work of the committees and to monitor the validation procedures utilized by the committees, the linkages of the test items to the examination blueprint, and associated content specifications. The procedures utilized by the panel minimized content error on the part of the committees and have provided assurances that the committees followed generally accepted principles in item development. Each examination question has undergone this process and the items were entered into an item-banking computerized program, (LXR test software package, PAR score/PAR test) which allows the board to maintain all of the specifications of the test item relating to its linkage to the examination blueprint, job analysis, and content validity.

After a sufficient pool of questions was developed and banked into the software, an

assessment was made of the number of test items developed for each content domain to ensure that there was a sufficient pool of items in each major/minor content area. Once satisfied that a sufficient pool of items existed, a form of the examination was generated according to the content specifications. Because this field is so recent, a pilot test was not possible given the very small number of individuals certified in electrodiagnostics and the number of these people involved in the writing of this examination. However, this test has been administered for a period of two years with the test takers writing comments on the test and the committees reviewing these comments along with the psychometrician evaluating the overall statistics and item analysis. This resulted in the final test that has been administered for the previous year.

A cut-score committee was assembled to establish the passing point of the examinations. The committee members selected were screened for their qualifications in the field of chiropractic neurology and electrodiagnostics. The cut-score procedure utilized was a modified Angoff procedure for determining the various passing points on both written and practical examinations. Each member of the committee rated each question that will be used in the grading of the examinations and a running mean score was calculated. When completed, the cut score for each of the examinations was determined, including the variance, standard deviation, KR 20 value, and the standard error of measurement. Each member of the multiple-choice exam Angoff cut-score committee was responsible for determining the passing point as it related to the minimally competent candidate. Prior to their initial rating, committee members were trained on cut-score methodology and provided a worksheet outlining the process with space on the worksheet to be used in describing the minimally competent candidate.