



NCCAOM Job Analysis Report for the 2020 Examination Blueprints

Executive Summary

Beginning in November 2016, the National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM®) undertook a full-scale Job Analysis study of the role of the licensed acupuncturists, creating a survey of the knowledge elements required of competent, entry-level practice. The results of this survey provided support for the relevance, validity, and legal defensibility of the NCCAOM® examination programs, establishing the link between what acupuncturists do on-the-job and the content of the NCCAOM® Foundations of Oriental Medicine (FOM), Biomedicine (BIO), Acupuncture with Point Location (ACPL), and Chinese Herbology (CH) examinations.

The survey was developed based on results from a comprehensive literature review of the role (e.g., curricula for training programs, job descriptions), phone interviews of practicing licensed acupuncturists, and feedback from a Panel of subject matter experts (SMEs). The 16 members of the Job Analysis (JA) Panel were recruited by NCCAOM leadership to represent the diversity of practice, experience, geographic location, education, ethnic backgrounds, and high-level professional expertise. All Panel members were NCCAOM credential holders in good standing.

The findings from the literature review and practitioner interviews were used to develop exhaustive lists of the knowledge, skills, and abilities (KSAs) required of competent, entry-level acupuncture practice. One list was created for each of the NCCAOM examinations (FOM, BIO, ACPL, CH), for a total of four KSA lists to be included on the survey. These lists were presented to the JA Panel members for review and approval at a three-day meeting held in Jacksonville, Florida, January 20-22, 2017. A rating scale was adopted, providing a mechanism for measuring KSA importance and frequency of practice. A demographic questionnaire was developed to gather confidential data describing the survey respondents, which included branching questions to determine whether the respondent was qualified to evaluate the CH KSA list and should be presented with that section of the survey.

After the Panel meeting the survey was created and posted online by staff at [Schroeder Measurement Technologies \(SMT\)](#), one of NCCAOM's testing vendors. The survey was beta tested with the Panel members and NCCAOM and SMT staffs, and the first invitations to respondents were issued June 30, 2017. Invitations were sent via email to all known licensed acupuncturists and NCCAOM constituent groups, numbering approximately 33,000 practitioners. Three email reminders to participate were sent while the survey was open through August 27. During that time the survey was also advertised via social media (e.g., Facebook, Twitter), and an article about the job analysis and how to complete the survey, written by the NCCAOM's CEO and the Director of Credentialing and Testing, was published in the July 2017 edition of *Acupuncture Today*.



There were 3,285 unique logins to the survey, representing a response rate of approximately 10%, which is excellent for an unsolicited online survey. Over 95% of respondents indicated that the survey either completely or adequately described the critical KSAs required for competent, entry-level practice as an acupuncturist. This supports a high degree of confidence that the depth and breadth of the survey content was reflective of practice across geographic settings and among various work-practice settings. The internal consistency of the survey ratings was evaluated using the Cronbach Alpha reliability estimate, which was calculated on each of the four KSA lists separately. This statistic is bound between 0 and 1, with values closer to 1 indicating higher instrument reliability, and coefficients of 0.7 or higher deemed acceptable. The average reliability estimate across all four sections was 0.96, which indicates that the KSAs did an excellent job measuring the same construct, i.e., knowledge base required for competent, entry-level practice as an acupuncturist.

A second JA Panel meeting was held in San Diego, California, November 4-5, 2017, to consider and review the results of the survey data analyses. The primary goal of this meeting was to use the survey results to establish exclusion criteria to differentiate between the critical and non-critical KSAs. Among the results presented by the NCCAOM's psychometrician were mean importance and frequency performed data for each KSA. Also provided were the results of subgroup analyses of KSA criticality based on responses to select demographic categories such as years of experience, geographic location, and practice setting, to ensure that the results held across all respondents.

Based on the review of the survey results, exclusion criteria were developed that eliminated five KSAs from the FOM list and eight KSAs from the ACPL list; two additional KSAs were removed from ACPL because one could not be assessed on a multiple-choice exam and the other already appeared on the FOM KSA list. No KSAs were removed from the BIO or CH KSA lists, and no KSAs were added to any of the lists after Panel review of open-ended comments from the survey respondents. The Panel also confirmed the lists of pharmaceuticals, nutrients and supplements, and medical conditions for the BIO examination, Extra Points for the ACPL examination, and Chinese individual herbs and formulas for the CH exam. During the meeting, the Panel agreed to minor additional editing resulting in final approved content outlines for the FOM, BIO, ACPL, and CH examinations.

Once each content outline was finalized, the content area weightings were established by the Panel based on data from the survey along with their own expert opinions. The Panel discussed the scoring and reporting procedures, recommending that the scaled score reporting model be continued, allowing for the reporting of a consistent minimum scaled passing score. The Panel also confirmed the test specifications were appropriate for the examination: 100 items administered during a 2 hour and 30 minute testing window, candidates have access to a white board and markers but not other resources. The Panel also reviewed and confirmed that the minimum eligibility and recertification requirements are sufficient and appropriate based on the new content outlines.



See the [NCCAOM website](#) for the content outlines for the Foundations of Oriental Medicine, Biomedicine, Acupuncture with Point Location, and Chinese Herbology certification examinations. These blueprints will take effect beginning January 1, 2020 .