Policies and Procedures
Examination Development Process
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Policy for Examination Development, Maintenance and Administration

The BPS has the responsibility to ensure that all BPS specialty certification programs are built and maintained in compliance with psychometric best practice as promulgated by international assessment/certification Standards, including the ISO Standard 17024, and the National Commission for Certifying Agencies (NCCA) Standards for the Accreditation of Certification Programs. The BPS will ensure compliance with these Standards and guidance documents, providing researched- based evidence that the BPS specialty certification programs are valid, reliable, job-related, fair and legally-defensible.

BPS' staff and consultants are required to act in the best interests of BPS and its candidates and certificants. Appropriate security and confidentiality policies and procedures are required to be maintained with regard to BPS proprietary information at all times. BPS will maintain appropriate documentation of confidentiality from BPS specialty council members and other subject matter expert volunteers who participate in BPS certification activities.

Unless specifically stated, all of the policies and processes described herein apply to every specialty certification offered by BPS.

The BPS pharmacy specialty examinations are designed to determine whether examinees meet or exceed a requisite level of job knowledge that is commensurate with the ability to practice safely and effectively in that specialty area. Each examination assesses the candidates' knowledge of specialty pharmacy subject matter with objectively scored exam items according to examination specifications developed by completing a job analysis.

Exams are administered annually, on dates determined by the BPS Board of Directors. Each examination form administered is made up of 150 items in total, with 125 scored and 25 pretest (unscored) items. The examination forms are assembled according to the knowledge areas and content weighting in the examination content outline.

The BPS in fulfilling its responsibilities to ensure that its specialty certification programs are in compliance with best practice and testing industry standards shall perform the following tasks:

a. Job Analysis

A job analysis[1] is a multi-method approach to defining a job role or competency area in terms of the relevant tasks or work activities and the associated competencies (operationalized as knowledge, skills, and abilities) and/or other attributes. Job analysis can also be thought of as referring to a family of related approaches to establishing the foundations of content validity[2] for

[1] Sackett, P.R., Laczo, R.M. (2003). Job and Work Analysis. Handbook of Psychology.
[2] Cronbach, L.J., Meehl, P.E. (1955). Construct Validity in Psychological Tests. Psychological Bulletin, 52(4).

an assessment[3], in this case applied to the assessment of competencies associated with a specialty area in the licensed practice of pharmacy. A job analysis is considered a multi-method approach because it incorporates both qualitative and quantitative evidence in support of the definition of the practice area in question. A job analysis is performed at the outset of the development for the certification program and again typically every 5 years so that the resulting exam blueprint is reflective of changes in practice and the target population.

The Job Analysis report will be provided to the Specialty Council for an open comment period and then the report, the resultant Examination Specifications, and any comments from the Specialty Council will be moved to the BPS Board of Directors for their review and approval of the Job Analysis Report and Examination Specifications document.

b. Standard Setting

Standard Setting[4] is the formal process undertaken by credentialing bodies to determine the passing standard[5] for an examination. The passing standard represents the level of performance on the examination that corresponds to safe and effective professional practice. The passing standard is identified as a cut score on a representative form of the examination. The Standard Setting Study is performed following the administration of the first examination form assembled to a new exam blueprint and again following any changes to the exam blueprint or the target population but may also be performed if there is a substantive change in the practice area or the eligibility requirements.

A Standard Setting memo will be provided to the Specialty Council for their review and approval. Following that, the Standard Setting outcomes will be moved to the BPS Board of Directors for their review and approval.

c. Statistical Analysis

Statistical analysis is performed following each administration window or the retirement of a set of examination forms administered via continuously available administration.

For windowed exams, statistical analysis is performed in two rounds: an initial round of analysis upon completion of an administration window and a final round of analysis following the implementation of all scoring adjustments.

For continuously available exams, statistical analysis is performed following the retirement of a set of examination forms, but an additional interim statistical analysis may be performed prior to the retirement of the examination forms.

Statistical analysis includes the management and cleaning of data and the computation of scale-level (i.e., exam-level and content-domain-level) and item-level statistics. Scale-level and item-level statistics are calculated using the Rasch[6] (item response theory) and raw score[7] (classical test theory) measurement models.

[3] Kane, M.T. (2013). Validating the Interpretations and Uses of Test Scores. Journal of Educational Measurement, 50(1),
[4] Angoff, W.H. (1971). Scales, norms, and equivalent scores. In R.L. Thorndike (Ed.), Educational Measurement, 2nd edition. Washington, DC: American Council on Education.
[5] Cizek, G.J., Bunch, M.B. (2007). The Angoff Method and Angoff Variations. In Standard Setting: A Guide to Establishing and Evaluating Performance Standards on Tests. Thousand Oaks, CA: Sage.
[6] Rasch, G. (1960). Probabilistic models for some intelligence and attainment tests. Copenhagen: Danish Institute for Educational Research.
[7] Novick, M.R. (1966). The axioms and principal results of classical test theory Journal of Mathematical Psychology, 3(1).

d. Equating

Equating[8] is completed to identify the equivalent cut score for a newly administered form as compared to an established baseline.

Rasch common-item equating is used for examinations with 30 or more examinees per year. Circle-arc[9]-equating is used for examinations with fewer than 30 examinees per year.

For windowed exams, post-administration equating is performed following statistical analysis and any scoring adjustments (i.e., removal from scoring of items with poor statistical performance).

For continuously available exams, pre-administration equating is performed following finalization of the examination content and prior to publication of the examination forms.

Subject Matter Expert Volunteers who participate in BPS certification activities.

Subject matter experts who participate in examination development activities are expected to reflect the target population that the examination represents. Each panel should be representative of the population as defined by the program, and as defined by the BPS target panel composition requirements. When a panel of subject matter experts is gathered, the panel is composed of individual subject matter experts who differ in terms of relevant professional characteristics such as years of experience, geographic representation, practice focus or subspecialty, and practice setting to better reflect the professional diversity within the specialty area of pharmacy practice. Subject Matter Experts are eligible to participate in multiple exam development activities or panels, but there is an expectation that the majority of individuals that comprise each panel are different to allow for a diversity of perspectives throughout the process.

[8] Kolen, M.J., Brennan, R.L. (1995). Test Equating. New York: Spring.

[9] Livingston, S.A., Kim, S. (2009). The Circle-Arc Method for Equating in Small Samples. Journal of Educational Measurement, 46(3).