Introduction

The purpose of this study was to determine a passing point (cut score) for the International Board of Lactation Consultant Examiners® (IBLCE®) International Board Certified Lactation Consultant® (IBCLC®) certification examination. In determining the passing point, a minimum standard to pass the examination was developed, which examinees must achieve to obtain certification status.

As with any professional practice standard setting process, some type of judgment is required. However, it is essential that the judgments involved in determining the passing point be made by qualified experts who are well informed regarding the intended use of the examination and possess the requisite knowledge and experience in the content domain to know what level of competence should be reasonably expected. Additionally, the judgments should be rendered in a meaningful way that takes into account the format and purpose of the test. This report describes the methods and results of a passing point procedure—attributed to Angoff (1971)—and documents the appropriateness of the predetermined pass/fail cutoff point for the examination.
Methodology

The Angoff technique was recommended by AMP, a PSI business (PSI/AMP) and selected by IBLCE as the procedure for estimating the pass/fail cutoff score. The underlying philosophy of the Angoff technique is that the standard set should be related to item difficulty, specifically the difficulty expected of borderline candidates. Therefore, this technique requires judges to render an expected performance rating for each test item. There are several steps required to complete the Angoff technique; the procedures used to complete these steps are as follows.

1. **Selection of the Judges.** The judges serving on the passing point study panel included 11 subject matter experts. They were selected to provide for an appropriate balance on potentially relevant characteristics reflective of the candidate population, such as area of special expertise and geographical distribution.

2. **Rating Procedure Training.** During a meeting held in November 2014, the purpose and procedures for the passing score study were discussed. The training process included a group discussion of several items. For each of these items, the judges provided an independent rating and announced their ratings. Judges discussed the factors that were considered in determining the ratings, in particular, those factors that were associated with relatively high or low ratings.

3. **Defining the Competence Criterion.** The judges participated in discussion regarding the definition of a minimally competent practitioner (MCP), that is, an individual who would be able to demonstrate just enough knowledge to pass the IBCLC examination. In general, an MCP has enough knowledge to practice safely and competently. The judges discussed areas of content that would be either particularly easy or difficult for MCPs to master, and the result of that discussion was documented.

4. **Rendering the Ratings.** The judges were instructed to provide an answer and a rating for each item, then review the answer key and revise their ratings, as necessary, in light of the appropriateness of their responses. For example, the judges were specifically advised to consider the possibility that their ratings might be too high on items that they answered incorrectly when the initial ratings were provided. All judgments were made independently; however, the judges were invited to identify items for which discussion would be appropriate. Following completion of the initial ratings, some items were discussed, which led to some minor modifications to the judges’ ratings.
Analysis and Results

The judges’ individual passing score estimates were similar, ranging from a low of 80 to a high of 85. The mean of the judges’ estimates was 82.25, which applied to a 175-item test, represents a raw score passing point of 144.

Discrimination index values were calculated to analyze the relationship between the ratings made by an individual judge and the sum of the other judges’ ratings, which is analogous to an item-total correlation. The discrimination values (ranging from 0.71 to 0.85) represent good reliability of the ratings, providing one source of evidence that the training of the raters was effective.
Conclusion

Designated representatives of IBLCE discussed the results of this study to determine the passing score to be used for 2016 spring form of the IBCLC examination. The results of the study were presented and consideration was given to whether adjustments would be appropriate, for example, by application of one of the confidence interval estimates or in consideration of statistical parameters (e.g., mean $p$ value) associated with the forms. Post-test equating results were computed to help compare the difficulty of these new forms to a previous base form. The purpose of this "reality check" (Livingston and Zieky, 1982) was to verify IBLCE’s expectations of the purpose and intended use of the examination, and the congruence of the examination results. Following discussion, IBLCE officials unanimously approved the implementation of 128 as the raw score passing point for 2016 spring form of the IBCLC examination.

The passing point study documented in this report was conducted as a result of the use of updated examination specifications (i.e., detailed content outline) established on the basis of the international practice analysis study completed in 2015 and documented elsewhere. The raw passing point established for the 2016 spring form of the IBCLC examination will serve as the new standard of competence until completion of the next practice analysis. This does not mean that a raw score of 128 will be applied as a passing point to every future examination form, rather, statistical equating procedures will be used to identify the passing point that will represent the same amount of knowledge on those future forms. Because new items are introduced on each form, and the difficulty of those items is not known until after the administration of the form and review of the item analysis, the raw score required to pass may be higher or lower to reflect the difficulty of those new forms. The results of the equating procedures will be reviewed and used by IBLCE to approve the passing point for each form.
References
