

## Association of Child Life Professionals Child Life Certification Commission Operational Policy and Procedure

# SUBJECT: 3.0 CHILD LIFE PROFESSIONAL CERTIFICATION EXAM DEVELOPMENT

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### RATIONALE

The Child Life Professional Certification Examination is an objective test that covers relevant knowledge, understanding, and practical application of child life theory and practice as determined by the Child Life Certification Commission and other Certified Child Life Specialists surveyed. The exam is developed by a committee of experts in the child life profession as a measurement of basic, entry-level knowledge of each certification candidate.

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## POLICY

CLCC will employ a professional testing firm to facilitate the entire exam development process. This company shall follow all credentialing industry standards and best practices in security and psychometrics.

Subject matter experts (SMEs) will be selected to serve on panels to give different perspectives on child life practice. The following elements will be considered when selecting panelists:

- Educational background
- Geographic location
- Number of years certified
- Primary job role/title
- Size of program/work setting

The CLCC Item Bank, exam forms, and any other exam materials will be kept in utmost confidence following industry best practices. All individuals involved in exam development are required to sign a confidentiality agreement annually.

#### Job Analysis

A Job Analysis (JA) study will be conducted to define the major domains and tasks relevant to entry-level child life practice once every five years at minimum. This schedule is based on the typical rate of developments in child life practice. Some changes are expected to occur in this interval. Child life practice will be routinely monitored for change. If the rate of change exceeds this pace, additional JAs will be conducted.

A panel of SMEs will be convened to review and discuss changes in practice that have occurred since the most recent JA. These will be documented along with elements of practice that have not changed in a draft Exam Content Outline. During this meeting, SMEs will be asked to hold in their minds the minimally-competent, entry-level child life specialist and will discuss the eligibility requirements that would lead to the knowledge and skills identified in the Exam Content Outline.

A validation survey of all CCLSs will be conducted. Respondents will be afforded the opportunity to agree/disagree with the panelists' determinations and to comment on specific domains and tasks identified.

A second convening of the SME panel will be used to discuss any anomalies in the survey results, weight each task statement based on the survey results for frequency, importance, and

criticality, and further refine eligibility requirements. At the completion of this meeting, a final revised Exam Content Outline will be established.

#### **Item Writing**

Item writing will take place annually. All Item Writers will be current credential holders and generally will serve a renewable 2-year term. All CLCC members are required to write items for at least one cycle prior to serving on other commission committees.

Item writing assignments will be made in accordance with the established exam specifications or Exam Content Outline. The professional testing agency will conduct a needs assessment of the Item Bank to determine areas of the Exam Content Outline which require additional items to be written. Each item will relate to a specific task statement that has been established to be job-related through the JA process.

Annual training of Item Writers will include a standard session explaining the elements of a psychometrically-sound item. This training will be conducted by a representative of the contracted professional testing service.

An enhanced second training on child life-specific material will be conducted by the Item Writing Committee Chair/Chair-Elect or their designated representative(s).

Well-established Item Writers will be selected to serve as item writing coaches and will be assigned item writers with whom they will work throughout the item writing cycle.

#### **Item Review**

Academicians will not serve on the Item Review or Exam Assembly Committees.

At the completion of or in tandem with the Item Writing process, Item Reviewers will be convened to provide an analysis of the newly-written items.

Item Reviewers apply stringent criteria in evaluating the new items:

- the content of each item must be well-documented and representative of best practice;
- items must be clearly written and easily understood;
- the correct answer must be accurately identified;
- the distracters (incorrect answers) must be plausible, but indeed wrong; and
- items must not discriminate against one group of examinees or another.

#### Exam Assembly

Academicians will not serve on the Item Review or Exam Assembly Committees.

Examination forms will be developed annually. Each exam form will be comprised of 125 weighted and 25 pre-test, unweighted 4-option, multiple-choice items.

All exam items will be related to at least one published reference and classified by domain and task as delineated in the Job Analysis.

#### **Standard Setting**

After a practice analysis is completed and a new exam form has been administered, CLCC must conduct a standard setting workshop to establish the passing score. This takes place after the first administration so that actual performance data can be used in the workshop. A representative from our test administration agency facilitates these meetings known as cut score studies (CSSs). The "cut score" being that which candidates must achieve in order to meet the established minimum standard. This is common practice in the credentialing industry for establishing passing scores

#### **DEFINITIONS**:

*Exam Development* – the process of creating, validating, and assembling the Child Life Professional Certification Examination. This process includes Job Analysis, Item Writing, Coaching, Item Review, Exam Assembly, and Standard Setting.

Job Analysis (JA) – the process by which the profession is defined so that the examination can be job related

Subject Matter Experts (SMEs) - informed and respected practitioners of the profession

Exam Content Outline - exam blueprint or specifications upon which the exam form is built

Items - examination questions

*Item Bank* – the repository for all written items, active, inactive, retired, etc.

Exam Form – a specific set of questions that is presented to certification candidates

Standard Setting - the process whereby the cut or passing score is determined

Cut Score - the passing point for the examination

p-value - the percentage of candidates who actually answered the question correctly during the exam administration.

#### PROCEDURE

#### Job Analysis

- Subject Matter Experts Panel of 10-15 CCLSs from various backgrounds selected to participate
- Panel meets over the course of 2-3 days, in person
- Draft, revised Exam Content Outline is developed by the panel
- Panel discusses eligibility requirements that would lead to the knowledge and skills needed to perform the tasks defined in the Exam Content Outline
- Professional testing agency designs the validation survey
- All CCLSs are provided the opportunity to respond to the survey
- Professional testing agency analyzes the results

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- SME Panel is reconvened to discuss survey results, finalize the Exam Content Outline, and make recommendations about eligibility requirements
- Following the JA, the Item Bank must be reclassified to the new blueprint at this time, a formal and thorough review of the established references is conducted

#### **Needs Assessment**

- Professional testing agency will review Item Bank to determine areas of Exam Content Outline which require additional items written
- Writing assignments will be based off this needs assessment
- To be completed annually in Summer/Fall time frame

#### **Item Writing**

- Item Writers will be assigned specific elements from the Exam Content Outline on which to develop items.
- Each item must have at least one published reference in which the correct answer to the question may be found.
- Item writers are provided a list of approved references and in turn identify at least one publication including page numbers to validate each item they write.
- It is critical that items have only one correct option. The distracters must clearly be wrong. Degrees of correctness are important and can assess candidates' ability to exercise professional judgment but the key must be the most correct answer and not debatable.
- Each of the distracters must be plausible, but inaccurate.
- It is important to include items that require examinees to use professional judgment however items based on opinion must not be used. When judgment is involved, items must be supported by well-established guidelines and not based on the opinion of professionals who are considered controversial or are not well known.
- Item writers take into consideration whether regional differences in practice might affect the accuracy of the answer.
- CLCC employs a style guide which is supplied to all members of the Item Development Sub-Committee. It includes information about formatting such as standards for punctuation, numbers, articles, time and other measurements, and naming conventions. It also provides information about language considerations. For instance, CLCC uses "People First" language that is reflective of current practice, is gender neutral, and culturally responsive.
- Item Writers will consult with Item Writing Coach for feedback/assistance/approval
- Item Writers will have opportunities to edit items based on feedback from testing agency and Item Review committee
- To be completed in Fall each year

#### **Item Review**

- Item Reviewers apply stringent criteria in evaluating items: the content of each item must be well-documented and representative of best practice; and items must be clearly written and easily understood
- Item Review takes places over a series of webinars hosted by the professional testing agency

- The items are classified according to the Exam Content Outline.
- Item Reviewers confirm that at least one published reference recognized by CLCC supports each item.
- Once the items are developed, reviewed, and validated, they are submitted to the test administration agency which performs a psychometric and editorial review.
- The final versions of the items are entered into the CLC Item Bank for possible use as pretest items on future examinations.
- To be completed in Fall each year

#### **Exam Assembly**

- Items are drawn from the item bank by a test development specialist representative of the professional testing agency and are assembled into preliminary versions of the examination as specified in the Exam Content Outline.
- Draft forms are reviewed by psychometric experts at SMT to ensure their psychometric integrity.
- Draft forms are reviewed by subject matter experts for technical accuracy. Although each item was previously judged to be psychometrically sound, fair, and content-valid, the same review process used in item development is used to give the questions one final review before being presented to candidates.
- Committee members receive draft exam forms prior to each session with updates being made in the interim based upon the discussion on the previous call.
- When reviewing the draft exam forms committee members identify items that are too similar; and those that help answer another question or "cue" one another (known as "bad pairs"). Members also look for over-representation of topics. Some of these items are removed from the draft form and new items are added for under-represented content.
- The professional testing agency adjusts each form and new drafts are reviewed by the committee on the next call. These steps are repeated as necessary. Typically, 3-4 of these sessions will be conducted over a 3-4 week period with each session scheduled for 3-4 hours.
- As the exam form nears a final draft, the professional testing agency provides a set of
  possible pre-test items for review. These are usually generated by the most recent round
  of item writing that was done by the committee the previous year. Members review the
  pre-test items in the same manner as above until exam forms are agreed upon.
- Finally, the forms are returned to the professional testing agency's editorial department for review before they are finalized.
- The procedures described above are widely accepted for developing reliable and contentvalid examinations. Multiple reviews by content and psychometric experts and the use of stringent criteria strengthen the validity of the test. Continuous evaluation of each examination's reliability maintains the consistency of the test to measure examinees' skills accurately.
- To be completed in January each year

#### **Updating Examination References**

The CLCC will conduct a mandatory review and update of examination references on the same cycle as the Job Analysis (i.e., every five years). After a Job Analysis, the CLCC will utilize the new Exam Blueprint determined from the Job Analysis for exam development. Chairs for the Item Writing, Item Review, and Exam Assembly Committees will review the references prior to item writing, to determine any needed reference revisions. The revised reference list will be used for item writing, item reviewing, and exam assembly. After exam development is completed, the chairs of the committees will meet again to discuss any additional needed revisions to the reference list.

New references will be attached to any new items or any appropriate items remaining in the item bank. All items on the new and future assembled exams will be referenced according to the updated list. Please note that revisions to the reference list can occur outside of this cycle if deemed necessary by the CLCC.

Each new reference list will be updated to any and all exam preparation materials developed by ACLP, or any CLCC policies referring to examination referencing.

#### **Standard Setting**

- CLCC recruits 8-12 SMEs, who are knowledgeable and skilled in the field of child life. All are CCLSs. SMEs are selected to represent a diverse population; they practice in different geographic regions and various practice settings, and have varying years of experience in the field.
- Before rating items, the SMEs and the facilitator (a representative of the professional testing agency) discuss the concepts of entry level, minimum competence, as well as the current eligibility requirements. The term "minimum competence" is used because the CCLS credential is granted to individuals who have mastered the child life concepts necessary to enter the profession, but may not have the same level of knowledge of someone who has been practicing for many years. It is important for the study participants to have a clear understanding of the relationship between the requirements and the resulting level of competence. The discussion continues with a profile of a minimally-competent candidate who meets the eligibility requirements. It is necessary for all participants to have the same expectations of the successful candidate. Participants are reminded that the purpose of the CLCC is to grant the CCLS credential to those candidates who demonstrate that they meet or exceed the lowest level of acceptable competence. Any candidate failing to demonstrate this proficiency will not receive certification.
- The standard setting method used is a "modified Angoff" approach.
  - Participants are asked to have in mind 100 minimally competent candidates and determine the number of those they would expect to answer each question correctly. This approach allows for varying strengths and weaknesses among a pool of minimally competent candidates.
  - Easier items have higher ratings, and the more difficult items, lower. A majority of "easy" items would result in a higher cut score. To account for random guessing on 4-option multiple choice items, item difficulty estimates are usually at least 25 since guessing would result in a correct answer 25% of the time. Reading errors,

test anxiety, or differences in candidate strengths and weaknesses make it highly unlikely that all candidates will perform perfectly on any given item; so ratings are always lower than 100.

- Study participants are asked to read each exam question. Reviewers are then asked, "How many of the 100 minimally-competent candidates would answer this item correctly?" They then assign a rating between 0 and 100 (ratings between 25 and 95 are recommended). If there is a significant difference between the ratings of the highest and lowest evaluator, each is asked to explain their rationale for their evaluation.
- Participants are given a p-value for each item. Considering this information as well as the ratings of the other SMEs, they are given the opportunity to adjust their rating if they think their initial evaluation was not based on appropriate criteria, but they are not required to do so.
- Because they are purposefully selected from different backgrounds, some variation among the SME's ratings is expected, but very large differences are not anticipated because a minimally-competent candidate should have approximately the same ability regardless of practice setting. These can usually be avoided through communication between the facilitator and SMEs.
- Each item on the exam form is rated in this manner. The ratings are tabulated and an average "cut score" is calculated. Individuals who meet or exceed the "cut score" pass and those that do not are not granted the credential.

#### RESOURCES

- Child Life Professional Certification Candidate Manual
- Committee Orientation Documents
- Exam Content Outline
- National Commission for Certifying Agencies (NCCA) Standards