

Generating Weights for Certification Objectives Listed in Certification Blueprint

Designing	Conferring
Developing	Accrediting
Implementing	Maintaining



Functional Manager	PMO
Component	Candidate

PREFACE: A certification blueprint codifies and characterizes what the target population must know and be able to do in terms of measurable and observable outcome statements (i.e., terminal and embedded certification objectives). It is a critical design document that guides the development of assessment tools and protocols that the program will use to determine whether or not an individual has mastered the requisite knowledge and skills. To ensure that the resulting assessment tools and/or protocols consist of the appropriate number of items that are representative of the total set of knowledge and skills, the certification blueprint must also provide information regarding the criticality (or “weight”) of a particular terminal certification objective (TCO) relative to the other TCOs the certification blueprint specifies..

PURPOSE: The purpose of this job aid is to provide considerations for certification blueprint design.

PROCEDURE: The process for generating weights for certification objectives consists of three major steps.

1. ELICIT IMPORTANCE RATINGS FROM 5 TO 10 SUBJECT MATTER EXPERTS.

- a. Facilitate review of certification blueprint to ensure that all subject matter experts have a shared understanding of the content the certification blueprint covers.
 - i. Ensure that everyone understands that the ECOs serve to define a TCO
- b. Ask each SME to provide independent judgments of the importance of each TCO using the prompt and scale below.
 - i. “How important is the TCO to the successful performance of the [target population’s] functions?”

1	2	3	4	5
Not at all Important	Slightly Important	Important	Very Important	Critical

- ii. Collect SME ratings

2. DERIVE “RELATIVE CRITICALITY INDEX” USING IMPORTANCE RATINGS (THIS CAN BE DONE USING EXCEL)

- a. Compile SME ratings and calculate “mean,” “standard deviation,” and “% of SMEs who responded 3 and above” for each TCO.
- b. Derive criticality part score for each TCO $\rightarrow ((\% \geq 3) \times (\text{mean}) \times (3 - \text{standard deviation}))$
- c. Sum criticality part scores across all TCOs.
- d. Generate relative criticality index for each TCO = (criticality part score for a TCO)/(sum of criticality part scores for all TCOs).
- e. Translate into percentage weight for each TCO $\rightarrow (\text{relative criticality index for a TCO}) \times (100)$.
- f. Check to ensure that percentage weight across TCO is equal to 100%.

3. REVIEW RESULTING WEIGHTS WITH SMES
 - a. Facilitate review of resulting weights with SMEs
 - b. Make adjustments (only if necessary – to account for scope of TCO)
 - c. Secure approval of resulting weights.
 - d. Finalize certification blueprint with weights presented to specify relative criticality of TCO relative to other TCOs.