

Understanding a Scaled Score

As of March 15, 2023, The Healthcare Quality Certification Commission (HQCC) reports candidate scores for the Certified Professional in Healthcare Quality® (CPHQ) exam on a scoring scale. The passing score is 600 on scale of 200 to 800. This document describes what a scaled score is, how it is developed, and why it is used.

What is a scaled score?

A scaled score represents the total number of questions a candidate answered correctly (raw score) converted to a consistent and standardized scale. Scaled scoring is a credentialing industry best practice for certification exams, used to account for the potential differences in difficulty across unique exam forms, or sets of questions, that a candidate might see when taking the exam.

As an accredited certification program, the CPHQ exam uses a scale to report scores to candidates. As mentioned above, the scale is 200-800, with a passing score represented as 600. All candidates, regardless of the unique set of questions they may see on their exam, will receive their score converted to this scale.

Why does the CPHQ Exam use scaled scoring?

Accredited certification programs use exams as tools to measure a candidate's level of competence against a pre-determined set of criteria. For fair and consistent exam results, scores should be comparable to each other. To achieve this, the scoring process must consider the potential variability in difficulty between unique exam forms.

Test developers adhere to strict specifications when developing exam forms to ensure that they are similar in difficulty, but because of the variability in difficulty of individual exam questions, it is common for forms to vary slightly in overall difficulty. For this reason, scores reported as percentages do not offer a fair comparison of different forms. For example, a candidate scoring 70% on one exam form would have displayed more competence than a candidate scoring 70% on a less difficult form.

For the same reason, raw scores are avoided, as two candidates with the same raw score on different forms would have demonstrated different levels of performance based on the unique exam form they saw. A scaled score provides candidates with a standard range and allows direct and fair comparisons of results, regardless of the exam form administered. This allows a candidate to accurately compare their scores on different attempts of the exam.

How is the passing score set?

The passing score for the CPHQ exam is established by the HQCC through a psychometrically-valid standard setting process. During this process, a task force of subject matter experts discusses the minimum level of competence that is required for passing the examination and obtaining the credential. They then review a representative exam form similar to that which a candidate may see when taking the exam. After evaluating and analyzing the difficulty of each question- as well as the specific knowledge, skills and abilities that qualified practitioners possess- a raw cut score, or the passing score, is set for that particular form. This becomes the scoring standard for the CPHQ program. As new exam forms are created, psychometric equating is done to adjust the passing score as needed to account for any variance in form difficulty from the standard.

How are differences between test forms handled?

CPHQ candidates are assured fairness when form difficulty varies by a statistical process called equating. Equating procedures measure the difficulty of each exam form and adjust the passing score so the same level of candidate performance is reflected in the passing score regardless of the difficulty of the exam form. By using equating procedures, an equivalent passing standard for each exam form is set, ensuring candidates are not penalized or given an unfair advantage based on slight variations in exam form difficulty.

The table below shows an [example](#) of scaled scores associated with the raw scores for two different exam forms, Form A and Form B.

<i>Raw Score</i>	<i>Scaled Score</i>	
	<i>Form A</i>	<i>Form B</i>
105	605	602
104	604	601
103	603	600
102	602	599
101	601	598
100	600	597
99	599	596
etc.	etc.	etc.

In this [example](#)*, Form A is slightly more difficult than Form B. For this reason, less questions need to be answered correctly on Form A to pass the exam. The raw score

required to achieve a scaled score of 600 on Form A (100) is different from the minimum raw score required for Form B (103). The passing score on each of these two forms, however, is reported as the same number – 600.

**This table is an example and is for illustrative purposes only. The raw scores used are not intended to represent a particular examination form and should not be used to calculate a passing score for any exam attempt. Additionally, there may be multiple forms distributed at any given time that a candidate may receive when taking the exam.*

Conclusion

Using a scoring scale allows candidates to understand the level of competence they demonstrated on an exam and accurately compare their scores on multiple exam attempts. For an accredited certification program, a multiple-choice exam is a tool to measure competence, and the score should accurately report this. Scaled scoring takes the output, in this case, number of questions answered correctly, and illustrates the level of competence accurately and consistently across all unique exam forms.