

KnowBe4 Security Awareness Proficiency Assessment

This document describes the development process of the Security Awareness Proficiency Assessment and its piloting, time study, and validity testing. To ensure the integrity of the assessment, KnowBe4 does not provide copies of the items¹.

The assessment was originally developed with 31 items, which were based on four research studies (listed below). The items were then reviewed by two quality assurance (QA) team members and revisions were made. Subject Matter Experts in the area of security awareness also reviewed and provided feedback on the items. Afterward, a pilot was performed ($n = 22$)² and an internal validity test was performed on the assessment. Any items that did not reach standards in the discrimination index³ were revised for clarity and a number of items were thrown out. External validity was performed on the overall score and the ranking by the chief security officer with a strong/moderate positive correlation ($r = .68$)⁴ between overall score and ranking. The final 23 items include 20 content items and three baseline items.

Two like items were then created for each of the remaining 20 content items that were not included in the previous question bank, increasing the total number of items in the bank to 60. These items were reviewed by two QA team members again and revisions were made. This new banked assessment was then re-piloted to a larger group ($n = 179$) and another item analysis was performed. Thirteen items were then flagged by an experienced item analysis team member who reviewed the resulting statistics and 10 items were revised after an in-depth review.

The final assessment randomizes the order of the 20 items (there are three informational items that are fixed). It also pulls a like item for each question in the assessment randomly. The probability of two people receiving the same items in the same order is extremely low.

We cannot provide copies of the items, nor approximate what items a particular user will receive. We consider this to be a valid and valuable assessment for the purposes of determining a user's need for training. This assessment can be used multiple times to re-assess a user's skills and security awareness proficiency over time.

1. Items: Questions or agreement statements asked to the end-user.

2. N: The number of participants in the pilot phase, referred to as the sample size.

3. Discrimination Index: The measure of how well an item is able to be distinguished between examinees who are knowledgeable and those who are not.

4. Correlation: In statistics, dependence or association is any statistical relationship, whether causal or not, between two variables.