



When you see this item, you may feel that you can do it, but you are not 100% sure your answer will be correct. Based on the statistical models, the 50% probability of answering an item correctly can give us the most information about your ability. Don't worry, I'm not going to bore you with statistics today.

Instead, I want to emphasize to you that we have a large enough item bank to support the CAT exam. If your ability is very high, we have very difficult items for you. If your ability is very low, we still can find very easy items for you. The CAT exams are challenging for all test takers.

If you take a CAT exam and start to see difficult items, that means your ability estimate is getting high, and you may have a good chance to pass the exam. Every time you respond to an item, the computer re-estimates your ability based on all questions you have answered.

And according to the updated ability estimate, the computer finds you the matching item for you to answer. The more items you answer, the more the computer knows about your ability. Therefore, the computer is able to give

candidate's ability. The minimum nurse exam will have 90 items, which comprise of 60 operational items and the 30 pretest items.

The operational items have the known item difficulties obtained from the pretest, so the CAT algorithms can use these items to estimate your ability. The pretest items are new items. We'll use your responses and ability estimate to determine item difficulties of the new items. The maximum length exam will have 120 operational items and the 30 pretest items.

The exam can stop with minimum number of questions if your ability is far above or below the passing standard. This means when you respond to 60 operational items, the computer knows that you will definitely pass or fail the exam and that there is no need for you to respond to more questions.

If your ability is very close to the passing standard, you will be given a longer exam because the computer needs to collect more information about your ability to make the pass/fail decision. On this slide, I would like to introduce you to content balancing. Content balancing means that all candidate receives the same distribution of items by content area.

For the REx-PN exam, we use Test Plan as a blueprint of all exams. The Test Plan provides the summary of the content and the scope of the licensure examination. No matter how many items you have in your exam, your exam meets the specified percentages of the Test Plan.

Oh, you may wonder how we can assure the content coverage is the same for all CAT exams. We programmed the computer to do two things. Firstly, before selecting the next question, the computer will determine the percentage of items you currently have in all A content areas and to find out which content area deviates the most from the Test Plan.

Secondly, the computer will select an item that targets to your ability from that content area. This way, no matter how many items you have in your exam, your exam can comply with the Test Plan. Starting from this slide, I'm going to show you how the computer decides whether you should pass the REx-PN exam.

In the REx-PN exam, we only report the pass/fail classification. You have four hours to take the exam, and you have to respond to at least 60 operational items. Once you have answered 60 operational items, your ability estimate is compared to the passing standard.

The computer has three different rules to terminate the exam and makes the pass/fail decision. The first stopping rule is the 95% confidence interval rule. After you have answered 60 operational items, the computer starts to check if your ability is clearly above or below the passing standard.

The exam continues when the confidence interval straddles the passing standard. The exam stops when the confidence interval is clearly above or below the passing standard. When the confidence interval of your ability is above the passing standard, you pass the exam, congratulations. When the confidence interval is below the passing standard, then the person failed the exam.

This is a graphical representation of a minimum length exam. Again, the blue horizontal line represents the passing standard. The test stops at item 60 because it is the minimum number of operational questions required. And at that point, the final ability and the confidence interval are below the passing standard.

In this case, the computer concludes that the candidate failed the exam. This slide will show you a