Past Event: 2021 NCSBN REx-PN Conference - **The REx-PN Item Development Process Video Transcript**
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Event
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More info: https://www.ncsbn.org/16034.htm

Presenter
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Hello. My name is Latrice Johnson, content manager here at NCSBN. During my 12 years in test development, I have gained a lot of experience with item development. By the end of this presentation, you will understand the REx-PN item development process and how we identify and correct outdated content.

What is REx-PN? REx-PN is the Canadian practical nurse exam developed by the British Columbia College of Nurses and Midwives and the College of Nurses of Ontario. The purpose of the REx-PN is to ensure patient safety and public protection. The exam achieves this by adhering to three foundational principles.

The exam is fair and comprehensive, entry-level, and current practice. Fair and comprehensive. To ensure fairness of the exam, content within the REx-PN exam is the direct result of gathering data from nurses in British Columbia and Ontario regarding activities of entry-level nurses.

Additionally, volunteer panels perform ongoing item reviews to ensure elimination of bias, to provide a fair examination for all candidates. Our measurement and testing team will also diligently monitor all REx-PN items and perform statistical analysis to ensure that each item is devoid of potential bias.

And that every exam administered falls within the examination specifications. These processes ensure that the REx-PN exam is testing nursing knowledge only. Entry-level and current practice. REx-PN items are developed to assess entry-level nursing knowledge.

This characteristic is important. As we know, nursing knowledge evolves with time and experience. We define an entry-level nurse as one who has been practicing for 12 months or less. REx-PN content is referenced using textbooks, journals, and websites, commonly used in nursing curricula to ensure a content reflects what is taught within educational programs.

In addition, REx-PN items are reviewed by practicing nurses to determine whether the content is current practice. The REx-PN process includes item development, pool maintenance, and measurement. During the next few slides, I will share details about each process.

This is an overview of the activities and tasks that are completed during development, pool maintenance, and measurement. This graphic depicts the item development cycle. Note that it takes approximately 18 months to two years from the time an item is written to the time it becomes operational on the REx-PN exam.

Now let's take a closer look at each step included in the item development process. This diagram illustrates the steps you use in the development of the REx-PN exam. The REx-PN item development process is a multifaceted process adhering to standards outlined in professional test development.

The exam process starts at the top with nursing practice. Nursing practice provides the foundation for the REx-PN item development process by identifying activities that can be performed by an entry-level nurse. I'll briefly review each step within the item development process. The next step in the item development process is the practice analysis, which is like a job analysis where certain functions or activities of a job are assessed.

In this instance, the practice analysis is the study of the task performed in entry-level practical or vocational nursing practice. Ultimately, the practice analysis results guide the content distribution of the client needs categories noted in the REx-PN Test Plan.

The test plan includes content distribution information, REx-PN integrated processes, administration information, nursing content, examples with sample test items after each category, and principles of computerized adaptive testing. The results of the practice analysis directly influence the development of the REx-PN test plan.

The REx-PN Test Plan is updated every five years in conjunction with the practice analysis to reflect fair, comprehensive, current entry-level nursing competency. This ensures that the content on the exam is consistent with entry-level PN practice in British Columbia and Ontario.

The content distribution within the test plan is used to guide REx-PN content delivery during each exam. Essentially, the test plan links the nursing activities outlined in the practice analysis to specific REx-PN exam content. The test plan also serves as an excellent source for candidates preparing for the exam.

Now, let's discuss the item development process. The item development process includes item writing, item review, sensitivity review, differential item functioning review, and nursing regulatory body review. Our item development process includes item writers who write the test questions or items that are included on the REx-PN exam.

Our item reviewers review every item created by the writers. All REx-PN item development volunteers must have a current unencumbered nursing license in order to be considered for panel participation. Panelists are recruited to represent various areas of expertise and practice settings in British Columbia and Ontario to provide diversity within each panel.

Item writers are required to be currently employed in a faculty position teaching nursing students within the clinical setting. All REx-PN items must be linked to the test plan suitable for entry-level practice, accurate current practice, and have one correct answer unless it is a multiple-choice item.

Item reviewers differ in that they are required to work with precept and/or supervise entry-level nurses in a clinical setting for greater than eight hours per week. During item review panels, reviewers check exam items for content accuracy, current practice, connection to the test plan, and appropriateness for entry-level practice.

The review process also includes unintentional bias reviews. The sensitivity review panelists review the items that are used to collect statistical data, also called pre-test items. Differential item functioning, or diff panelists, review both pre-test items and operational items.

The diff and sensitivity panelists are asked to flag items that reflect stereotypes, inflammatory material, inappropriate language, and assumptions. These reviews are essential to ensure that item content excludes unintentional bias language. These items flagged during these panels are reviewed by nursing regulators and revised to remove insensitive words or phrases that may affect the exam measurement.

Each REx-PN item is reviewed during the editorial review process. The editor reviews the items for grammar, clarity, punctuation, and spelling. The editor also reviews the items for style consistency. This is an important step because we have many volunteers who volunteer to write the REx-PN items.

The editor ensures that the items look and read as though they were written by one writer. Every REx-PN item is pre-tested before being placed in the operational pool. We gather statistical data on each item before it is used to accurately measure a candidate's nursing knowledge.

There are 30 pre-test items on every REx-PN exam. Pre-test items do not look any different from operational items. So their integration into the exam is seamless to a candidate. Pre-test items are not scored and do not affect the outcome of a candidate's examination. Regulatory body review.

Nursing regulatory bodies may choose to review items and provide feedback on whether items reviewed reflect entry-level practice and adhere to laws and statutes in their province. If an item is determined to be inconsistent with nursing practice within their province, supporting documentation is submitted to NCSBN. The REx-PN Practical Nurse Examination Committee makes the final decision regarding the item disposition.

The REx-PN Practical Nurse Examination Committee has the ultimate oversight responsibility for the REx-PN examination. The committee is composed of nursing regulators within British Columbia and Ontario. For additional information about item writing and item review, please visit the ncsbn.org website to access the webinars.

During the next few slides, I will talk about how we maintain the REx-PN exam item development. REx-PN maintenance includes pool rotation, item reviews, and content currency. Pool rotation involves following an item pool delivery schedule to reduce the risk of overexposure. It also includes performing many internal reviews and quality control checks prior to pool deployment.

Let's talk about item review and maintenance. Note that all items, both existing and newly developed items will go through the item review process to ensure currency of content. Items are reviewed at each segment of the item development process and prior to every pool deployment.

Are you wondering how we identify practice changes and outdated content? Well, we have two ways in which we identify outdated content. First, our internal staff use textbooks, journals, and websites to

reference every REx-PN item. Second, the item reviewers and the nursing regulators will also alert us to any changes in nursing practice.

During this validation process, we can identify a change in practice or outdated content. Here are some common changes that can result in pool reviews. Change within healthcare guidelines and medication recall, device discontinuation, or change in public policy.

Here are a few examples of changes that have occurred during my 12 years in test development that required a pool review. Remember when CPR guidelines changed from ABC airway, breathing, and circulation to CAB circulation, airway, and breathing, that was a fun one. We reviewed and modified several items to ensure accuracy.

If an item is not consistent with current practice, or if clinical practice update is needed and identify, we take immediate corrective action. We mass-live [SP] items in the field to ensure that no candidate receives the item that contains the outdated content.

We perform a database search to ensure that items that contain the outdated content is not deployed on an exam. We revise the item and the item is returned to the beginning of the item development process. Then the item is included in pre-testing. In summary, the REx-PN item development process is a multi-step rigorous thorough process that relies heavily on volunteers.

This process is essential to the development of a psychometrically sound and legally defensible examination. The item validation process includes both internal referencing and item reviews by nurses who work directly with entry-level nurses. The accuracy of the exam is very important. We have immediate actions that we can take to maintain the accuracy of the exam.

Now that you have learned about the development of the REx-PN exam, we hope that you are inspired to join us as a volunteer. If you enjoy discussions about the nursing practice, want to contribute to the nursing profession, or would like to learn more about nursing from other nurses, then volunteer to develop REx-PN. Come on, we make it fun.

Thank you for your time and attention today.