2021

Informatics Nursing
Role Delineation Study Executive Summary

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Executive Summary

The American Nurses Credentialing Center (ANCC) contracted with PSI Services LLC (PSI) to perform a role delineation study (RDS) for the Informatics Nursing examination in 2021. An RDS (sometimes referred to as a job analysis, practice analysis, or work analysis) is a scientific inquiry conducted to identify the tasks and work activities performed, the context in which those activities are carried out, and the competencies (knowledge areas, skills, and abilities) required to perform a job role successfully[1]. The RDS results become the basis of a variety of human resource management initiatives. For certification, the results are used to create a validated assessment of required job competencies. This report introduces the methods and results of the RDS for the Informatics Nursing certification examination.

Methods

ANCC assembled 10 clinicians certified in Informatics Nursing to serve on the content expert panel (CEP). The panel members feature a wide variety of work-related characteristics, such as years of experience, work setting, geographical location, and areas of expertise. This diversity helps develop a scope of practice reflective of the roles and responsibilities of the job and relatively free from bias.

The RDS process used in this study yields examination specifications that accurately reflect the scope of practice, allowing for the development of fair, accurate, and realistic assessments of candidates' readiness for certification. The process comprises three major activities, including:

1. ***Content Expert Panel (CEP) Meeting*** – A gathering of subject matter experts to discuss and develop a description of the scope of practice in terms of tasks, skills, and knowledge
2. ***RDS Survey*** – A large-scale survey of clinicians not involved with the CEP to validate the tasks, skills, and knowledge developed during the CEP meeting
3. ***Development of Examination Specifications*** – The development of the examination specifications by the CEP based on the survey results

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[1] Sackett, P. R., & Laczo, R. M. (2003). Job and work analysis: Industrial and Organizational Psychology. In Borman, W. C., Ilgen, D. R. & Klimoski, R. J. (eds.), *Comprehensive Handbook of Psychology, Volume 12, Industrial and Organizational Psychology*. New York, NY: John Wiley and Sons.

On September 16 and 17, 2021, PSI conducted a two-day, virtual meeting with the CEP. With PSI facilitating, the CEP discussed the scope of practice, developed a list of tasks, skills, and knowledge statements that reflect the job role, organized the statements into a domain and subdomain structure, reviewed rating scales to be used on the subsequent survey, and developed demographic questions for the survey. The previous ANCC Informatics Nursing Test Content Outline, *Nursing Scope and Standards of Practice,*[2] the *Guide to the Code of Ethics for Nurses with Interpretive Statements,*[3] were used as resources when developing the tasks, skills, and knowledge statements.

The RDS survey included the task, skill, and knowledge statements, as well as demographic questions developed by the CEP. PSI programmed, administered, monitored, and analyzed the survey. Respondents provided ratings on the importance and frequency of each task and the importance of each skill and knowledge statement.

A pilot of the survey, conducted October 4-11, 2021, included seventeen ANCC-certified Informatics Nursing practitioners who reviewed the survey for functionality and clarity. Based on the feedback received, no modifications were made to the live survey.

The live survey was administered October 14 to November 26, 2021. The invitation was sent using online survey software to 1,500 individuals. All invitees were active ANCC-certified Informatics Nursing practitioners, selected using the stratified random sampling procedure based on region. Of the 1166 individuals who opened the survey invitation, 639 (55%) completed the survey.

Examination specifications were developed during a one-day, virtual meeting on December 13, 2021. With PSI facilitating, the CEP reviewed the survey results, finalized the tasks, skills, and knowledge that would comprise the next Test Content Outline, finalized the item allocations for the examination, and finalized the linkage analysis. Item allocations were determined through content weighting (mean importance of the skill and knowledge statements) and CEP discussion of the results. For the linkage activity, the CEP identified links between the tasks and knowledge/skill statements to ensure that each task was covered by at least one relevant skill or knowledge area and that each skill and knowledge area had at least one associated relevant task. Linkages provide evidence that the knowledge and skills are applicable to the job.

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[2] American Nurses Association (2015). *Nursing scope and standards of practice (3rd ed.)*. Silver Spring, MD: Nursebooks.org.
[3] American Nurses Association (2015). *Guide to the code of ethics for nurses with interpretive statements: Development, interpretation, and application (2nd ed.)*. Silver Spring, MD: Nursebooks.org.

Results

The resultant examination specifications include 27 knowledge areas and 24 skills across the following three competency areas (content domain level):

1. Foundations of Practice
2. System Design Lifecycle
3. Data Management and Healthcare Technology

The mission of the American Nurses Credentialing Center (ANCC), a subsidiary of the American Nurses Association (ANA), is to promote excellence in nursing and health care globally through credentialing programs. ANCC's internationally renowned credentialing programs certify and recognize individual nurses in various practice areas. It recognizes health care organizations that promote nursing excellence and quality patient outcomes, while providing safe, positive work environments. In addition, ANCC accredits health care organizations that provide and approve continuing nursing education. It also offers educational materials to support nurses and organizations as they work toward their credentials.

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