



Job Analysis Report

National Certification Corporation (NCC)

Neonatal Nurse Practitioner (NNP)

June 2023

Submitted to:



Contents

Executive Summary	2
Introduction	3
Job Analysis Committee Meeting	4
Job Analysis Survey	7
Development of Exam Specifications	12
Appendix A - Subject Matter Experts	14
Appendix B - Job Analysis Presentation	16
Appendix C - Survey Text	22
Appendix D - Survey Invitation Email	30
Appendix E - Exam Content Outline	31



Executive Summary

This report describes the methodology and procedures used to conduct a job analysis and develop the exam specifications for the National Certification Corporation (NCC) Neonatal Nurse Practitioner (NNP) certification examination.

The three major activities that comprise the job analysis process described in this report are as follows:

1. **Job Analysis Committee Meeting** – A gathering of subject matter experts (SMEs) to discuss and develop a description of the scope of practice
2. **Job Analysis Survey** – A large-scale survey of practitioners not involved with the SME panel to validate the task and knowledge statements developed by the committee
3. **Development of Examination Specifications** – The development of an Examination Content Outline by the committee based on the results of the survey

Several practitioners were assembled by NCC to serve as subject matter experts (SMEs). The individuals selected represent a wide variety of work-related characteristics such as years of experience, work setting, geographic location, and areas of specialty. This helps in developing a scope of practice that is reflective of the roles and responsibilities of the job role and is relatively free from bias. By analyzing the experiences and expertise of current practitioners, the results from the job analysis become the basis of a validated assessment that reflects the competencies required for competent job performance.

The job analysis process utilized in this study yields exam specifications that accurately reflect the scope of practice, allowing for the development of fair, accurate, and realistic assessments of candidates' readiness for certification. The resultant Examination Content Outline (Appendix E) indicates a 150-item examination with content distribution requirements at the competency area (content domain) level as well as topic (content subdomain) level. The five competency areas are:

1. General Assessment
2. General Management
3. Pharmacology
4. Embryology, Physiology, Pathophysiology and Systems Management up to the Age of Two
5. Professional Practice

Introduction

This report describes the methodology and procedures used to conduct a job analysis and develop the exam specifications for the National Certification Corporation (NCC) Neonatal Nurse Practitioner (NNP) certification examination.

The job analysis was conducted in accordance with principles and practices outlined in the *Standards for Educational and Psychological Testing*¹, which describe principles and guidelines for all aspects of test development, including content validation.

A job analysis (sometimes referred to as a practice analysis, job task analysis, role delineation study, work analysis, or competency profiling) is a scientific inquiry conducted to identify the tasks and work activities conducted, the context in which those tasks and activities are carried out, and the competencies (knowledge areas, skills, and abilities) required to perform a job role successfully². Different methods can be used which may differ in the levels of specificity in analyzing and describing different work elements, with the choice of method largely dependent on the intended purpose and use of the results. The methodology of the current analysis was tailored to the creation of exam specifications for test development.

When completed, the job analysis process utilized in this study yields exam specifications that accurately reflect the scope of practice, allowing for the development of fair, accurate, and realistic assessments of candidates' readiness for certification. The job analysis is typically performed every 5 to 7 years so that the content outline represents the current scope of practice. Because it serves as the primary basis for content validity evidence, as required by the aforementioned standards, the job analysis is a primary mechanism by which a certifying body or regulatory board can ensure the accuracy and defensibility of an exam. It serves as the foundation of the certification exam and is critical to the success of the entire exam development process. All necessary documentation verifying that the validation process has been implemented in accordance with professional standards is included in this report.

This report is divided into the major activities of the job analysis process, which are:

1. **Job Analysis Committee Meeting** – A gathering of subject matter experts (SMEs) to discuss and develop a description of the scope of practice
2. **Job Analysis Survey** – A large-scale survey to practitioners not involved with the SME panel to validate the task and knowledge statements developed by the committee
3. **Development of Examination Specifications** – The development of an Examination Content Outline by the committee based on the results of the survey

¹ American Educational Research Association, American Psychological Association, National Council on Measurement in Education (2014). *Standards for Educational and Psychological Testing*. Washington, DC: AERA.

² Sackett, P.R., Walmsley, P.T., Laczko, R.M. (2012). *Job and work analysis: Industrial and Organizational Psychology*. In N. Schmitt, S. Highhouse (Eds.), *Comprehensive Handbook of Psychology*, Volume 12. New York, NY: John Wiley and Sons.

Job Analysis Committee Meeting

NCC selected subject matter experts (SMEs) to represent a wide variety of work-related characteristics such as years of experience, work setting, geographic location, and areas of specialty to develop a scope of practice that is reflective of the roles and responsibilities of the job and is relatively free from bias. See Appendix A for a complete list of the SMEs and their qualifications.

Prior to the job analysis committee meeting, six SMEs were interviewed to help provide background information on the job role, the history of the credential, and the anticipated future of the job role. These interviews were conducted between January 19, 2023 and January 26, 2023.

PSI Services LLC (PSI) conducted a job analysis committee meeting on February 10, 2023 with SMEs to discuss the scope of practice and develop a list of tasks and knowledge areas that reflect the job role. PSI led the SMEs in refining task and knowledge statements and organizing them into a domain and subdomain structure. The outgoing exam content outline was used as a resource when developing the knowledge and tasks. See Appendix B for the presentation used to orient the job analysis committee at the beginning of the meeting.

The job analysis committee developed 34 task statements, as follows:

1. Provide prenatal consultation.
2. Create and/or update documentation in medical record.
3. Communicate with primary care provider.
4. Review maternal medical record.
5. Perform physical assessment.
6. Consult with specialist.
7. Attend deliveries.
8. Perform delivery room resuscitation and stabilization.
9. Provide newborn consultation.
10. Transport neonate.
11. Order and interpret laboratory and diagnostic studies.
12. Perform procedures.
13. Respond to emergencies.
14. Perform cardiopulmonary resuscitation.
15. Evaluate risks and benefits of diagnostic and therapeutic interventions.
16. Formulate diagnosis and implement plan of care in collaboration with family and multidisciplinary team.
17. Communicate plan of care to family, staff, and/or other providers.
18. Provide anticipatory guidance.
19. Obtain informed consent.
20. Calculate and order medications.
21. Calculate intake/output, kcals, and GIR.
22. Order and/or manage respiratory support.
23. Order parenteral and/or enteral nutrition.
24. Evaluate and document responses to interventions and modify plan of care.
25. Manage and prioritize case load.
26. Participate in daily patient and/or multidisciplinary round.

27. Participate in patient handoff.
28. Plan and coordinate discharge.
29. Provide palliative and/or end-of-life care.
30. Provide grief counseling.
31. Participate in quality improvement activities.
32. Participate in research activities.
33. Provide outreach education.
34. Provide staff education.

The job analysis committee developed 23 knowledge statements across five content domains, as follows.

1. General Assessment

- A. Maternal History Affecting the Newborn
- B. Neonatal Gestational Age Appropriate/Infant Physical Examination
- C. Family Integration
- D. Discharge Preparation and Follow-up Care

2. General Management

- A. Thermoregulation
- B. Resuscitation and Stabilization
- C. Growth and Nutrition
- D. Fluids and Electrolytes

3. Pharmacology

- A. Pharmacokinetics and Pharmacodynamics
- B. Common Drug Therapies

4. Embryology, Physiology, Pathophysiology and Systems Management up to the Age of Two

- A. Cardiac
- B. Pulmonary
- C. Gastrointestinal
- D. Renal and Genitourinary
- E. Metabolic and Endocrine
- F. Hematopoietic
- G. Infectious Diseases
- H. Musculoskeletal
- I. Integumentary
- J. Genetics
- K. Neurological
- L. Ears, Eyes, Nose, and Throat

5. Professional Practice Issues

- A. Professional Practice Issues (e.g., legal, ethics, neonatal safety, quality improvement)

Following the creation of the task and knowledge lists, the committee members were tasked with identifying linkages between the task and knowledge statements. This was done to provide evidence that the knowledge areas were indeed required to perform the tasks identified. This was also done to ensure that each task was covered by at least one relevant knowledge area and that each knowledge area had at least one relevant task identified. Table 1 shows a matrix of knowledge-task linkages identified.

Table 1.
Linkages Among Knowledge and Task Statements.

Task	Knowledge																						
	K01	K02	K03	K04	K05	K06	K07	K08	K09	K10	K11	K12	K13	K14	K15	K16	K17	K18	K19	K20	K21	K22	K23
T01	X	X																					X
T02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
T03	X	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	
T04			X																				
T05	X	X																					
T06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
T07						X			X														
T08						X			X														
T09	X	X	X			X					X	X	X	X	X	X	X	X	X	X	X	X	
T10	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
T11	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
T12		X	X		X				X	X	X	X	X	X	X	X	X	X	X		X	X	X
T13						X																	X
T14		X				X			X		X	X											X
T15	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
T16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
T17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
T18			X	X																			X
T19			X																				X
T20		X	X				X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	
T21		X					X	X						X									
T22	X	X							X	X		X											X
T23		X					X	X	X	X			X	X									
T24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
T25	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
T26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
T27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
T28	X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
T29		X	X	X			X		X	X													X
T30		X	X	X																			X
T31																							X
T32			X																				X
T33																							X
T34																							X

Job Analysis Survey

PSI developed, administered, and monitored a survey to validate the tasks and knowledge areas developed by the job analysis committee and to help determine content weighting. To this end, the survey collected respondents' ratings of the importance and frequency for each task and knowledge area. The importance and frequency scale were used to evaluate the appropriateness of the inclusion of each knowledge statement and task.

Importance How important is this task to your role as an NNP?

- 0 - Not Relevant
- 1 - Minimally Important
- 2 - Somewhat Important
- 3 - Moderately Important
- 4 - Very Important
- 5 - Critically Important

Frequency How frequently do you perform this task in your role as an NNP?

- 0 - Not Relevant
- 1 - Rarely
- 2 - Seldom
- 3 - Occasionally
- 4 - Frequently
- 5 - Very Frequently

Between February 27, 2023 and March 3, 2023, a pilot survey was conducted with the job analysis committee to ensure that the survey was operating correctly, and any modifications or corrections were made address the pilot survey reviewers' comments. See Appendix C for a copy of the final job analysis survey.

The live survey was sent using online survey software to a list of 7,024 individuals that was obtained from NCC. The list consisted of individuals who currently work as a Neonatal Nurse Practitioner. The number of individuals that responded to the survey (tasks and knowledge statements) was 970 (13.8%). The survey was opened on March 10, 2023 and closed on April 7, 2023. See Appendix D for the email sent to potential respondents.

Following the close of the survey, the data were analyzed to identify any respondents who provided responses lacking any variance (i.e., "straight-lining" or providing the same response to every task or knowledge). No responses were removed from the data set, yielding a usable number of 970 completed responses.

Table 2 shows the mean ratings provided for frequency and importance of the task statements. Table 3 shows the mean ratings provided for the frequency and importance of the knowledge statements.



Table 2.
Frequency and Importance Ratings for Task Statements.

Task Statements	Importance	Frequency
1 Provide prenatal consultation	3.01	2.43
2 Create and/or update documentation in medical record	4.45	4.83
3 Communicate with primary care provider	3.57	3.50
4 Review maternal medical record	4.46	4.62
5 Perform physical assessment	4.84	4.92
6 Consult with specialist	3.99	3.81
7 Attend deliveries	4.42	4.35
8 Perform delivery room resuscitation and stabilization	4.61	4.13
9 Provide newborn consultation	3.33	3.02
10 Transport neonate	2.30	1.56
11 Order and interpret laboratory and diagnostic studies	4.73	4.86
12 Perform procedures	4.55	4.33
13 Respond to emergencies	4.72	4.10
14 Perform cardiopulmonary resuscitation	4.76	3.05
15 Evaluate risks and benefits of diagnostic and therapeutic interventions	4.35	4.32
16 Formulate diagnosis and implement plan of care in collaboration with family and multidisciplinary team	4.47	4.62
17 Communicate plan of care to family, staff, and/or other providers	4.51	4.75
18 Provide anticipatory guidance	3.99	4.13
19 Obtain informed consent	4.09	3.90
20 Calculate and order medications	4.73	4.71
21 Calculate intake/output, kcals, and GIR	4.54	4.69
22 Order and/or manage respiratory support	4.70	4.72
23 Order parenteral and/or enteral nutrition	4.50	4.48
24 Evaluate and document responses to interventions and modify plan of care	4.35	4.52
25 Manage and prioritize case load	4.08	4.39
26 Participate in daily patient and/or multidisciplinary round	4.18	4.55
27 Participate in patient handoff	4.43	4.76
28 Plan and coordinate discharge	4.07	4.14
29 Provide palliative and/or end-of-life care	3.89	2.49
30 Provide grief counseling	3.11	1.69
31 Participate in quality improvement activities	3.57	3.14
32 Participate in research activities	2.77	1.90
33 Provide outreach education	2.35	1.52
34 Provide staff education	3.77	3.36

Table 3.***Frequency and Importance Ratings for Knowledge Statements.***

Knowledge Statements		Importance	Frequency
1	Maternal History Affecting the Newborn	4.53	4.69
2	Neonatal Gestational Age Appropriate/Infant Physical Examination	4.35	4.49
3	Family Integration	4.08	4.22
4	Discharge Preparation and Follow-up Care	4.20	4.19
5	Thermoregulation	4.47	4.41
6	Resuscitation and Stabilization	4.83	4.46
7	Growth and Nutrition	4.59	4.69
8	Fluids and Electrolytes	4.67	4.71
9	Pharmacokinetics and Pharmacodynamics	4.21	3.93
10	Common Drug Therapies	4.47	4.45
11	Cardiac	4.43	4.09
12	Pulmonary	4.67	4.69
13	Gastrointestinal	4.44	4.41
14	Renal and Genitourinary	4.25	4.08
15	Metabolic and Endocrine	4.20	3.89
16	Hematopoietic	4.19	3.97
17	Infectious Diseases	4.50	4.38
18	Musculoskeletal	3.86	3.61
19	Integumentary	3.97	3.86
20	Genetics	3.85	3.44
21	Neurological	4.35	4.18
22	Ears, Eyes, Nose, and Throat	3.89	3.69
23	Professional Practice Issues (e.g., legal, ethics, neonatal safety, quality improvement)	3.91	3.70

The survey included demographic questions regarding professional characteristics relevant to the job role. Table 4 shows a summary of the demographic questions in the survey.

Table 4.***Results of the Demographic Questions in the Job Analysis Survey.***

1. Which of the following best describes your PRIMARY practice setting as an NNP?	<i>n</i>	%
Hospital	954	98.2
Academia	10	1
Follow-up Clinic	5	0.5
Pediatric Primary Care	1	0.1
Total	970	100

2. Which of the following best describes your basic NNP education?	<i>n</i>	%
Certificate	97	10
Graduate	873	89.9
Total	970	100

3. What is your highest level of education?	<i>n</i>	%
Diploma	3	0.3
Associate	6	0.6
Baccalaureate	19	2
Masters	686	70.6
Post Masters	78	8
Doctorate - DNP	160	16.5
Doctorate - PhD	15	1.5
Doctorate - Other	1	0.1
Post DNP	2	0.2
Total	970	100

4. On average, how many hours per week do you work as an NNP?
Mean = 40.17 | Standard Deviation = 10.198 | Minimum = 5 | Maximum = 96

5. How many years of experience do you have as an NNP?
Mean = 14.20 | Standard Deviation = 10.636 | Minimum = 0 | Maximum = 45

6. Which of the following best describes your PRIMARY practice location?	<i>n</i>	%
Northeast	102	10.5
Midwest	264	27.2
South	408	42
West	185	19.1
Canada	11	1.1
Total	970	100

7. What percentage of your practice as an NNP is devoted to direct patient care?	<i>n</i>	%
0% - 25%	55	5.6
26% - 50%	67	6.9
51% - 75%	83	8.6
76% - 100%	764	78.7
Missing	1	0.1
Total	970	100

8. What percentage of your practice as an NNP is devoted to education?	<i>n</i>	%
0% - 25%	882	90.8
26% - 50%	12	1.2
51% - 75%	3	0.3
76% - 100%	3	0.3
Missing	72	7.2
Total	970	100

9. What percentage of you practice as an NNP is devoted to management?	<i>n</i>	%
0% - 25%	757	77.8
26% - 50%	54	5.6
51% - 75%	39	3.9
76% - 100%	17	1.7
Missing	103	10.6
Total	970	100

10. What percentage of you practice as an NNP is devoted to research?	<i>n</i>	%
0% - 25%	842	86.7
26% - 50%	3	0.3
51% - 75%	1	0.1
76% - 100%	0	0.0
Missing	125	12.9
Total	970	100

11. Do you precept, orient, or teach NNPs?	<i>n</i>	%
Yes	740	76.2
No	229	23.6
Missing	1	0.1
Total	970	100

12. Do NNPs perform point of care ultra sounds in your unit?	<i>n</i>	%
Yes	129	13.3
No	841	86.6
Total	970	100

13. Are alternative forms of surfactant administration used in your NICU (LISA/SALSA)?	<i>n</i>	%
Yes	279	28.7
No	688	70.9
Missing	3	0.3
Total	970	100

Development of Exam Specifications

The Job Analysis Committee met on May 31, 2023 to review the results of the survey, finalize the tasks and knowledge that would comprise the next Examination Content Outline, and finalize the content weighting for the examination.

The committee reviewed the demographic results and confirmed that the results matched expectations and impressions of the practitioner population, suggesting that the respondent sample is reflective of the target population.

The committee then reviewed the draft content weighting, discussing any adjustments necessary to align the number of items per content area for adequate content coverage on the assessment. The draft content weighting was developed by calculating the criticality value (mean importance rating multiplied by the mean frequency rating) and then determining a percentage weight based on the relative weight of the criticality value for each content area. Weighting was adjusted in some areas to reflect a compromise with the current weights.

See Table 5 for a summary of the content weighting determination. The final Examination Content Outline can be found in Appendix E.

Table 5.
Content Weighting Determination.

Knowledge Statements	Criticality	Percentage	Draft # Items	Final # Items
1 General Assessment				
1A Maternal History Affecting the Newborn	21.246	5.1	8	7
1B Neonatal Gestational Age Appropriate/Infant Physical Examination	19.532	4.7	7	9
1C Family Integration	17.218	4.1	6	3
1D Discharge Preparation and Follow-up Care	17.598	4.2	6	4
2 General Management				
2A Thermoregulation	19.713	4.7	7	5
2B Resuscitation and Stabilization	21.542	5.2	8	6
2C Growth and Nutrition	21.527	5.2	8	8
2D Fluids and Electrolytes	21.996	5.3	8	10
3 Pharmacology				
3A Pharmacokinetics and Pharmacodynamics	16.545	4.0	6	6
3B Common Drug Therapies	19.892	4.8	7	7
4 Embryology, Physiology, Pathophysiology and Systems Management up to the Age of Two				
4A Cardiac	18.119	4.4	7	10
4B Pulmonary	21.902	5.3	8	14
4C Gastrointestinal	19.580	4.7	7	7
4D Renal and Genitourinary	17.340	4.2	6	6
4E Metabolic and Endocrine	16.338	3.9	6	6
4F Hematopoietic	16.634	4.0	6	6
4G Infectious Diseases	19.710	4.7	7	11
4H Musculoskeletal	13.935	3.4	5	3

Knowledge Statements		Criticality	Percentage	Draft # Items	Final # Items
4I	Integumentary	15.324	3.7	6	3
4J	Genetics	13.244	3.2	5	5
4K	Neurological	18.183	4.4	7	7
4L	Ears, Eyes, Nose, and Throat	14.354	3.5	5	3
5 Professional Practice					
5A	Professional Practice Issues (e.g., legal, ethics, neonatal safety, quality improvement)	14.467	3.5	5	4

Appendix A

Subject Matter Experts

Job Analysis Committee

NAME	RELEVANT CREDENTIALS	YEARS OF EXPERIENCE	EMPLOYER/ AFFILIATION	JOB TITLE	GEOGRAPHIC LOCATION
Courtney Campbell	MSN, NNP-BC, C-NPT	13	University of Texas Southwestern, Baylor University - Louise Herrington School of Nursing	Lead NNP, Clinical Instructor	Frisco, TX Region 3
Erin Kelly	MSN, APRN, NNP-BC	15	Johns Hopkins All Children's Hospital, Bayfront Baby Place - Bayfront Health	NNP	Riverview, FL Region 3
Kelly Miles	MSN, NNP-BC, RNC-NIC	8	Albany Medical Center, Russell Sage College	Instructor of Pediatrics, Clinical Adjunct Faculty	Albany, NY Region 1
Ke-Ni (Niko) Tien	DNP, NNP-BC	31	Cleveland Clinic Foundation, Johns Hopkins Hospital, Children's Center, Maryland Regional Neonatal Transport Program	NNP	Avon Lake, OH Region 2
Kristin Howard	DNP, APRN, NNP-BC	16	Children's Hospital of Colorado, Special Care Nursery - Boulder Foothills Community Hospital, Regis University	NNP	Arvada, CO Region 4
Lalainya O'Connell	MSN, NNP-BC	19	Albany Medical Center	NNP	Delmar, NY Region 1
Melanie (Gumina) Ryan	MSN, NNP-BC, CRNP	7	St. Francis Medical Center (Envision Healthcare), Children's Hospital of Philadelphia	NNP, CRNP	Colorado Springs, CO Region 4
Shea Aulbach	MSN, NNP-BC	31	Peyton Manning Children's Hospital NICU, and Hancock Regional Health	NNP	Hartford City, IN Region 2
Tony Broderick	RRT, MSN, APRN, NNP-BC	27	Medical University of South Coastal Carolina Hospital, St. Luke's Regional Medical Center	NNP	Hardeeville, SC Region 3

Interviewees

NAME	RELEVANT CREDENTIALS	YEARS OF EXPERIENCE	EMPLOYER/ AFFILIATION	JOB TITLE	GEOGRAPHIC LOCATION
Lalainya O'Connell	MSN, NNP-BC	19	Albany Medical Center	NNP	Delmar, NY Region 1
Kelly Miles	MSN, NNP-BC, RNC-NIC	8	Albany Medical Center, Russell Sage College	Instructor of Pediatrics, Clinical Adjunct Faculty	Albany, NY Region 1
Ke-Ni (Niko) Tien	DNP, NNP-BC	31	Cleveland Clinic Foundation, Johns Hopkins Hospital, Children's Center, Maryland Regional Neonatal Transport Program	NNP	Avon Lake, OH Region 2
Courtney Campbell	MSN, NNP-BC, C-NPT	13	University of Texas Southwestern, Baylor University - Louise Herrington School of Nursing	Lead NNP, Clinical Instructor	Frisco, TX Region 3
Erin Kelly	MSN, APRN, NNP-BC	15	Johns Hopkins All Children's Hospital, Bayfront Baby Place - Bayfront Health	NNP	Riverview, FL Region 3
Kristin Howard	DNP, APRN, NNP-BC	16	Children's Hospital of Colorado, Special Care Nursery - Boulder Foothills Community Hospital, Regis University	NNP	Arvada, CO Region 4

Appendix B

Job Analysis Presentation



Job Analysis

PSI Certification Psychometrics

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Objectives



Develop a description of the profession

- Define the relevant tasks
- Define the relevant knowledge



Develop all other elements for a survey

- Develop background information questions
- Review rating scales



Establish linkages

- Identify meaningful connections between the task and knowledge lists



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Job Analysis Process

1. Prepare Draft Materials
2. Conduct Job Analysis Meeting
3. Conduct Pilot Survey
4. Conduct Live Survey
5. Perform Data Analysis
6. Create Exam Specifications
7. Develop Summary Report



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Introduction



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Purpose of Credentialing Examinations

- To protect the public from harm caused by incompetent professional practice
- To assess professional competence in terms of the knowledge and skills required to successfully perform the tasks associated with the job role
- To establish and apply a consistent standard that reflects the competency level required of practitioners who meet the eligibility requirements
- To provide a valid and reliable means of identifying those who are competent to practice in the profession



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What is a Job Analysis?

“ Procedure to identify the content of a job in terms of activities involved and attributes or requirements needed to perform the activities. ”

This is the primary source of content validity for a credentialing assessment

This is the process by which the Examination Specifications are created

A representative list of knowledge and tasks associated with the job is developed

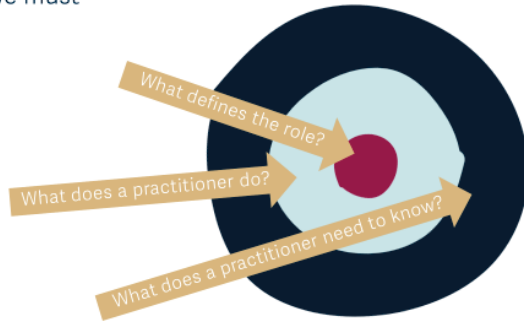


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Multiple Levels of Analysis

To create a comprehensive and accurate representation of the job role, we must identify:

- Target Population
- Tasks Performed
- Knowledge Required



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Terminology

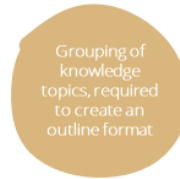
Tasks



Knowledge

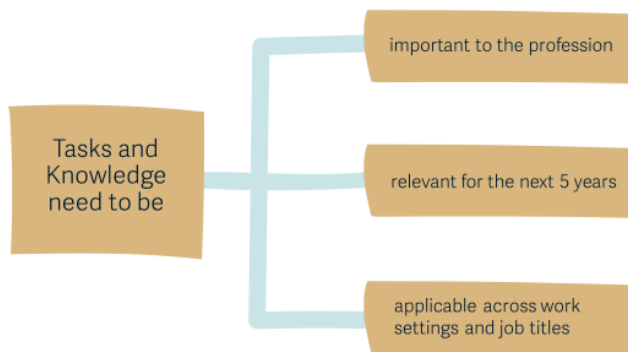


Content Domains (and subdomains)



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Requirements for Tasks and Knowledge



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Rating Scales

Importance

How important is this
[task / knowledge]
to the job role?

0 - Not Relevant
1 - Minimally Important
2 - Somewhat Important
3 - Moderately Important
4 - Very Important
5 - Critically Important

Frequency

How frequently is this
[task performed /
knowledge used]
in the job role?

0 - Not Relevant
1 - Rarely
2 - Seldom
3 - Occasionally
4 - Frequently
5 - Very Frequently



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Why Are You Here?

Subject Matter Experts (SMEs)

You are here to provide your content expertise and your professional experience

Facilitators

We are here to guide you through the process

Client Representatives

You are here to provide additional background information and the certifying body's perspective



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Questions?



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Linkage Process



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Linkage Analysis

Knowledge vs. Task

- The list of Knowledge areas is used to delineate what content will be directly assessed by the exam
- Tasks provide additional context for the application of those knowledge and skills

Purpose of Linkage Analysis

- To establish evidence that the Knowledge areas are applicable to the Tasks
- To determine any potential gaps in either inventory



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Linkage Matrix

- We will identify connections among tasks and knowledge

The Outcome Looks Something Like This

Each linkage represents that the knowledge is required in order to complete the task

	T1	T2	T3	T4	T5
1A1	X				
1A2		X			
1A3		X		X	
1B1			X		
1B2			X		X
1C1				X	
1C2				X	
2A1	X		X		
2A2		X			
2B1			X	X	
2B2		X			
2B3			X	X	X
2B4		X	X		



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Linkage Thought Process

Doesn't everything apply to everything?

- Not exactly

	Grilling	Baking
Knife Techniques	X	-

Consider this example:

- I need knowledge of Knife Techniques to Prepare Ingredients For Grilling
- I don't need knowledge of Knife Techniques to Mix Baking Ingredients



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Questions?



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Appendix C

Survey Text

NCC Neonatal Nurse Practitioner (NNP) Job Analysis Survey

Welcome

The purpose of this survey is to identify tasks and knowledge reflective of the Neonatal Nurse Practitioner (NNP) role. The results of this survey will be used to help develop the specifications for the NNP certification exam. Those who complete it will have a chance to win an Amazon gift card.

The survey will likely require 15 to 20 minutes to complete. You can complete each part of the survey in separate sittings at the same computer. Please be aware that you must completely finish a page before clicking on "Next" to save your responses up to that point. If you need to review your responses, you can use the 'Prev' button to move back through the survey. There is no limit on the number of times you can use the link to go back to the survey before clicking on "Done" to submit your survey.

Your individual responses will be kept confidential and will be combined with those of other respondents. Only staff persons from PSI Services and NCC will have access to the data collected. Aggregated data from this survey will be published in a report that summarizes the process used to develop the specifications for the NNP certification exam.

Please direct all inquiries to: info@nccnet.org

The deadline for completion of the survey is April 7, 2023.

Do you agree to participate in the survey?

- Yes
- No

Do you currently work as a Neonatal Nurse Practitioner (NNP)?

- Yes
- No

Which of the following best describes your PRIMARY practice setting as an NNP?

- Hospital
- Academia
- Follow-up Clinic
- Pediatric Primary Care

What is the highest level hospital/unit designation in which you primarily practice as an NNP?

- Level I (Basic care)
- Level II (Specialty care for newborns at 32 weeks gestation or more, weighing 1500 g or more with problems expected to resolve rapidly or who are convalescing from higher level care.)
- Level III (Subspecialty care for high-risk newborns needing continuous life support and comprehensive care for critical illness. Includes infants weighing less than 1500 g or less than 32 weeks gestation at birth.)
- Level IV (Includes level III care as well as on-site pediatric medical and surgical subspecialties to care for infants with complex congenital or acquired conditions, coordinate transport systems and outreach education.)
- Not applicable

Which of the following best describes your basic NNP education?

- Certificate Program
- Graduate Program

What is your highest level of education?

- Diploma
- Associate
- Baccalaureate
- Masters
- Post Masters
- Doctorate - DNP
- Doctorate - PhD
- Doctorate - Other
- Post DNP

On average, how many hours per week do you work as an NNP?

How many years of experience do you have as an NNP? (Select 0 for less than 1 year)

Which of the following best describes your PRIMARY practice location?

- Region 1: Northeast (ME, NH, VT, MA, RI, CT, NY, NJ, PA)
- Region 2: Midwest (WI, IL, MI, IN, OH, ND, SD, NE, KS, MN, IA, MO)
- Region 3: South (KY, TN, MS, AL, FL, GA, SC, NC, VA, WV, DC, MD, DE, TX, OK, AR, LA)
- Region 4: West (MT, ID, WY, NV, UT, CO, AZ, NM, WA, OR, CA, AK, HI)
- Canada

What percentage of you practice as an NNP is devoted to each of the following categories?
(Enter whole numbers, without a percent sign, that total 100)

Direct Patient Care	<input type="text"/>
Education	<input type="text"/>
Management	<input type="text"/>
Research	<input type="text"/>

Do you precept, orient, or teach NNPs?

- Yes
- No

Do NNPs perform point of care ultra sounds in your unit?

- Yes
- No

Are alternative forms of surfactant administration used in your NICU (LISA/SALSA)?

- Yes
- No

NCC Neonatal Nurse Practitioner (NNP) Job Analysis Survey

Tasks

Please use the following rating scales to indicate how frequently you perform each task and how important it is to your professional role as an NNP.

Frequency: How frequently do you perform this task in your role as an NNP?

- 0 - Not Relevant
- 1 - Rarely
- 2 - Seldom
- 3 - Occasionally
- 4 - Frequently
- 5 - Very Frequently

Importance: How important is this task to your role as an NNP?

- 0 - Not Relevant
- 1 - Minimally Important
- 2 - Somewhat Important
- 3 - Moderately Important
- 4 - Very Important
- 5 - Critically Important

Task Ratings

	Frequency	Importance
Provide prenatal consultation	<input type="text"/>	<input type="text"/>
Create and/or update documentation in medical record	<input type="text"/>	<input type="text"/>
Communicate with primary care provider	<input type="text"/>	<input type="text"/>
Review maternal medical record	<input type="text"/>	<input type="text"/>
Perform physical assessment	<input type="text"/>	<input type="text"/>
Consult with specialist	<input type="text"/>	<input type="text"/>
Attend deliveries	<input type="text"/>	<input type="text"/>
Perform delivery room resuscitation and stabilization	<input type="text"/>	<input type="text"/>
Provide newborn consultation	<input type="text"/>	<input type="text"/>
Transport neonate	<input type="text"/>	<input type="text"/>
Order and interpret laboratory and diagnostic studies	<input type="text"/>	<input type="text"/>
Perform procedures	<input type="text"/>	<input type="text"/>
Respond to emergencies	<input type="text"/>	<input type="text"/>
Perform cardiopulmonary resuscitation	<input type="text"/>	<input type="text"/>
Evaluate risks and benefits of	<input type="text"/>	<input type="text"/>

diagnostic and therapeutic interventions	<input type="text"/>	<input type="text"/>
Formulate diagnosis and implement plan of care in collaboration with family and multidisciplinary team	<input type="text"/>	<input type="text"/>
Communicate plan of care to family, staff, and/or other providers	<input type="text"/>	<input type="text"/>
Provide anticipatory guidance	<input type="text"/>	<input type="text"/>
Obtain informed consent	<input type="text"/>	<input type="text"/>
Calculate and order medications	<input type="text"/>	<input type="text"/>
Calculate intake/output, kcals, and GIR	<input type="text"/>	<input type="text"/>
Order and/or manage respiratory support	<input type="text"/>	<input type="text"/>
Order parenteral and/or enteral nutrition	<input type="text"/>	<input type="text"/>
Evaluate and document responses to interventions and modify plan of care	<input type="text"/>	<input type="text"/>
Manage and prioritize case load	<input type="text"/>	<input type="text"/>
Participate in daily patient and/or multidisciplinary round	<input type="text"/>	<input type="text"/>
Participate in patient handoff	<input type="text"/>	<input type="text"/>
Plan and coordinate discharge	<input type="text"/>	<input type="text"/>
Provide palliative and/or end-of-life care	<input type="text"/>	<input type="text"/>
Provide grief counseling	<input type="text"/>	<input type="text"/>
Participate in quality improvement activities	<input type="text"/>	<input type="text"/>
Participate in research activities	<input type="text"/>	<input type="text"/>
Provide outreach education	<input type="text"/>	<input type="text"/>
Provide staff education	<input type="text"/>	<input type="text"/>

What critical task, if any, do you think is missing from this list?

NCC Neonatal Nurse Practitioner (NNP) Job Analysis Survey

Knowledge

Please use the following rating scales to indicate how frequently you use each knowledge area and how important it is to your professional role as an NNP.

Frequency: How frequently do you perform this task in your role as an NNP?

- 0 - Not Relevant
- 1 - Rarely
- 2 - Seldom
- 3 - Occasionally
- 4 - Frequently
- 5 - Very Frequently

Importance: How important is this task to your role as an NNP?

- 0 - Not Relevant
- 1 - Minimally Important
- 2 - Somewhat Important
- 3 - Moderately Important
- 4 - Very Important
- 5 - Critically Important

General Assessment

	Frequency	Importance
Maternal History Affecting the Newborn	<input type="text"/>	<input type="text"/>
Neonatal Gestational Age Appropriate/Infant Physical Examination	<input type="text"/>	<input type="text"/>
Family Integration	<input type="text"/>	<input type="text"/>
Discharge Preparation and Follow-up Care	<input type="text"/>	<input type="text"/>

General Management

	Frequency	Importance
Thermoregulation	<input type="text"/>	<input type="text"/>
Resuscitation and Stabilization	<input type="text"/>	<input type="text"/>
Growth and Nutrition	<input type="text"/>	<input type="text"/>
Fluids and Electrolytes	<input type="text"/>	<input type="text"/>

Pharmacology

	Frequency	Importance
Pharmacokinetics and Pharmacodynamics	<input type="text"/>	<input type="text"/>
Common Drug Therapies	<input type="text"/>	<input type="text"/>

Embryology, Physiology, Pathophysiology and Systems Management up to the Age of Two

	Frequency	Importance
Cardiac	<input type="text"/>	<input type="text"/>
Pulmonary	<input type="text"/>	<input type="text"/>
Gastrointestinal	<input type="text"/>	<input type="text"/>
Renal and Genitourinary	<input type="text"/>	<input type="text"/>
Metabolic and Endocrine	<input type="text"/>	<input type="text"/>
Hematopoietic	<input type="text"/>	<input type="text"/>
Infectious Diseases	<input type="text"/>	<input type="text"/>
Musculoskeletal	<input type="text"/>	<input type="text"/>
Integumentary	<input type="text"/>	<input type="text"/>
Genetics	<input type="text"/>	<input type="text"/>
Neurological	<input type="text"/>	<input type="text"/>
Ears, Eyes, Nose, and Throat	<input type="text"/>	<input type="text"/>

Professional Practice Issues

	Frequency	Importance
Application of Professional Issues (e.g., legal, ethics, safety, quality improvement)	<input type="text"/>	<input type="text"/>

What critical knowledge area, if any, do you think is missing from this list?

NCC Neonatal Nurse Practitioner (NNP) Job Analysis Survey

Thank You!

Thank you for completing the 2023 NCC NNP job analysis survey!

If you need to review your answers, you can use the 'Prev' button below to move back through the survey.

Those who complete the survey can enter a drawing for a chance to win a \$100 Amazon gift card. Your name and email address are requested for this drawing and will be used for this purpose only.

Do you agree to provide your name and email address in order to enter the drawing?

Yes

No

NCC Neonatal Nurse Practitioner (NNP) Job Analysis Survey

Drawing Information

Enter the drawing for a \$100 Amazon gift card.

Your name

Your email

Please re-enter your
email address

NCC Neonatal Nurse Practitioner (NNP) Job Analysis Survey

Comment Box

Thank you very much for your responses.

Please provide any additional comments in the text box below.

Please click on **Done** to complete the survey and submit your responses.

Please provide any additional comments here.

Appendix D

Survey Invitation Email

DATE:	Friday, March 10, 2023 12:00 PM
FROM:	frank.williams@psionline.com via SurveyMonkey
SUBJECT:	2023 NCC NNP Job Analysis Survey
BODY:	<div>The image shows the NCC logo, which consists of the letters 'NCC' in a stylized purple font with a colorful swoosh underneath. To the right of the logo, it says 'National Certification Corporation'. Below the logo, the text 'NCC Neonatal Nurse Practitioner (NNP) Job Analysis Survey' is written in white on a purple background.</div> <p>NCC is conducting a survey regarding the knowledge and tasks needed for the Neonatal Nurse Practitioner (NNP) credentialing program and your input is vital. Share your expertise of the job role by clicking the button below to start the survey. Thank you for your participation!</p>

Appendix E

Exam Content Outline

1	General Assessment	23
A	Maternal History Affecting the Newborn	7
B	Neonatal Gestational Age Appropriate/Infant Physical Examination	9
C	Family Integration	3
D	Discharge Preparation and Follow-up Care	4
2	General Management	29
A	Thermoregulation	5
B	Resuscitation and Stabilization	6
C	Growth and Nutrition	8
D	Fluids and Electrolytes	10
3	Pharmacology	13
A	Pharmacokinetics and Pharmacodynamics	6
B	Common Drug Therapies	7
4	Embryology, Physiology, Pathophysiology and Systems Management up to the Age of Two	81
A	Cardiac	14
B	Pulmonary	7
C	Gastrointestinal	6
D	Renal and Genitourinary	6
E	Metabolic and Endocrine	6
F	Hematopoietic	11
G	Infectious Diseases	3
H	Musculoskeletal	3
I	Integumentary	5
J	Genetics	7
K	Neurological	3
L	Ears, Eyes, Nose, and Throat	10
5	Professional Practice	4
A	Professional Practice Issues (e.g., legal, ethics, neonatal safety, quality improvement)	4



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