

Health Services Researcher Pathway

Nurse Professional Development Tool: Research Competencies

This Tool was developed as part of the commissioned research project by the Michael Smith Foundation for Health Research entitled: *Health Services Researcher Pathway*. This project was completed by the following Project Team in 2012-13:

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Nurse Professional Development Tool

Research Competencies

How to use this Tool

Following is a tool for self-assessment or for use in conjunction with a manager or educator. Each Level as described in the Pathway has its own assessment component. To assess yourself, reflect on each criterion and check your assessment of where you are at: Ask yourself “***Can I do this? Do I do this? How well can I do this?***”. A set of suggested learning resources are included in the Tool to assist you in advancing along the Pathway’s levels; other resources can be identified through your own exploration. This assessment tool can be adapted or shortened, focused on *Skills*, as appropriate for the work environment.

✓1 *Need learning and practice*

This column reflects whether you know the concepts and skills required for effective performance of a particular action or attribute.

- If you have acquired this knowledge/skill through prior education or on-the-job learning, leave this blank.
- If you need further learning and practice, mark a ✓ in this column

✓2 *Knowledgeable, but need practice*

This column reflects your ability to apply your knowledge/skill in changing practice situations.

- If you have the background knowledge, and have had several opportunities to successfully apply your knowledge or demonstrate this attribute in your role, leave this one blank.
- If you have the knowledge, but need more practice and would like to receive feedback to feel confident and competent, mark a ✓ in this column.

✓3 *Competent*

- This column applies to you if you have the required knowledge/skill and have had several opportunities to successfully apply it in your role or practice. You consistently demonstrate or perform this attribute.
- If you if you can demonstrate a particular action independently and effectively in a variety of situations, mark a ✓ in this column.

✓4 *Expert: can teach others*

- This column is used when you are able to act as a teacher for others and facilitate learning of this skill/attribute/knowledge.
- If you have thorough knowledge and are competent, confident and effective in performing a particular action in complex situations, mark a ✓ in this column.

Level 1 Nurse Professional Development Tool
Research Competencies

Professional
Standards Met?

Competency stage			
1 Need learning & practice	2 Knowledgeable, but need practice	3 Competent	4 Expert: can teach others

Level 1 Research User: The Nurse Learning About Research Use in Care Delivery Settings

Check	Criteria	1	2	3	4	Recommended Learning Activities & Resources	Have I done this?	Learning Goals Met Date
	Research Process: Knowledge Criteria ► Can you describe... Direct research utilization? Research’s contribution in EBP? Relationships between EBP and the research process? Differences between research and QI? QI processes to ensure quality and safe care delivery? Differences and similarities between EBP and EiP?					Research Process Resources Australian Journal of Advanced Nursing: <i>A nurses’ guide to the critical reading of research</i> http://www.ajan.com.au/Vol26/26-1v2_Ingham-Broomfield.pdf CASP UK: <i>Critical Appraisal Skills Programme: Making sense of evidence about clinical effectiveness</i> http://www.casp-uk.net/wp-content/uploads/2011/11/CASP_Qualitative_Appraisal_Checklist_14oct10.pdf CIHR: <i>Critical Appraisal of Intervention Studies, online course</i> http://www.cihr-irsc.gc.ca/e/45235.html Lippincott Williams & Wilkins & Ovid: <i>Demystifying Research - Simplifying Critical Appraisal</i> http://jonathanhearseydotnet1.files.wordpress.com/2012/05/simplifying-critical-appraisal.pdf Institute for Work and Health: <i>Research 101</i> http://www.iwh.on.ca/research-101/part-1 National Institutes of Health: <i>Introduction to Health Services Research : A Self-Study Course</i> http://www.nlm.nih.gov/nichsr/iHCM/toc.html Ontario Public Health Libraries Association: <i>Critical Appraisal of Research Evidence 101</i> http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/docs/caore.pdf Webcast: AcademyHealth: <i>Research Resources for HSR</i>		
	Research Process: Skills Criteria ► Do you usually/regularly... Follow agency protocols/ guidelines for EBP? Conduct literature searches and read research reports? Use electronic resources to keep informed on research findings (e.g. sign up for journal alerts and social media applications)? Participate in QI activities (e.g., filling out surveys, assisting with QI campaigns such as hand hygiene)? Collaborate on QI activities with the interprofessional /interdisciplinary team, including patients and their families?							
	Research Process: Attitude Criteria ► Are you usually/regularly... Curious about how you might apply research findings of a report into your practice environment? Enthusiastic and wanting to learn more about research initiatives in your own practice area?							

Level 1 Research User: *The Nurse Learning About Research Use in Care Delivery Settings*

Check	Criteria	1	2	3	4	Recommended Learning Activities & Resources	Have I done this?	Learning Goals Met Date
						http://www.academyhealth.org/Training/ResourceDetail.cfm?ItemNumber=3320		
	Data Analysis Literacy: Knowledge Criteria ► Do you usually/regularly... Skim the methods section including statistical analyses, when you read a research report? Understand the steps of statistical analyses in a research report and their implications in the findings? Hypothesize the expected outcomes and compare their relevance with the research question as you read a research report? Understand the strengths and weaknesses of the most common quantitative/ qualitative data analyses methods?					Data Analysis Literacy Resources National Institutes of Health: <i>Finding and Using Health Statistics</i> http://www.nlm.nih.gov/nichsr/usestats/index.htm University of the West of England: <i>Numeracy Introduction</i> http://learntech.uwe.ac.uk/numeracy/ Podcast: Adventures In Evaluation: <i>Hey, Where Did My Stats Go?</i> http://adventuresinevaluation.podbean.com/2013/03/02/hey-where-did-my-stats-go/ Webcasts: National Collaborating Centre for Methods and Tools: <i>Understanding Research Evidence</i> http://www.youtube.com/playlist?list=PL50nkPezdX7n8FLBPhI3KI3O0JvU6I1JK Webcasts: University of Berkeley: <i>Introduction to Probability and Statistics</i> http://www.youtube.com/view_play_list?p=FCCED623A3AB020F		
	Data Analysis Literacy: Skills Criteria ► Do you know how to... Enter data into a database accurately/ check data for accuracy? Work through all steps in analyzing QL data? Identify and understand descriptive and inferential statistics and findings of qualitative and quantitative research reports?							
	Data Analysis Literacy: Attitude Criteria ► Do you usually/regularly... Value the use and steps of statistics and systematic quantitative data analyses methods?							
	Knowledge Translation: Knowledge Criteria ► Can you describe... Credible and reliable sources of knowledge that you can use to inform practice decisions? Literature search methods and how to access search tools? How to cite scholarly peer reviewed journals? KT activities to change practice in innovative ways? Systematic reviews and their role in changing practice based on evidence?					Knowledge Translation Resources Institute for Work and Health: <i>What Researchers Mean By...</i> http://www.iwh.on.ca/what-researchers-mean-by University of Washington: <i>Finding Qualitative Research Articles</i> http://www.nlm.nih.gov/nichsr/usestats/index.htm		
	Knowledge Translation: Skills Criteria ► Do you usually/regularly... Consult a librarian for credible and reliable sources when you are seeking to change your practice? Integrate research findings with other types of evidence such as patients' needs / clinical expertise to improve quality of care?							

Level 1 Research User: *The Nurse Learning About Research Use in Care Delivery Settings*

Check	Criteria	1	2	3	4	Recommended Learning Activities & Resources	Have I done this?	Learning Goals Met Date
	Share with your colleagues what you ‘took away’ from attending a conference? Identify inconsistencies between research findings and expertise or patients’ preferences in your practice environment?							
	<i>Knowledge Translation: Attitude Criteria</i> ► Are you usually... Intending to use research findings to advocate for practice improvements? Expressing interest in learning more about EBP?							

Examples that demonstrate competence	
Areas to learn and develop/improve	

Level 2 Nurse Professional Development Tool
Research Competencies

Professional Standards Met?		Competency stage				Recommended Learning Activities & Resources	Have I done this?	Learning Goals Met Date
		1 Need learning & practice	2 Knowledgeable, but need practice	3 Competent	4 Expert: can teach others			
Level 2 Research User: The Nurse Using Research in Care Delivery Settings								
Check	Criteria	1	2	3	4			
	Research Process: Knowledge Criteria ► Can you describe... Basic elements of a research report & steps of a literature review? Components of the ethical review process? How healthcare information & communication technologies (ICT) support EBP? QI processes and models? Your role and that of others in research and QI? Contributions of the patient/family perspective and varying disciplines to nursing and health services research?					Research Process Resources AcademyHealth: Health Services Research Methods Website http://www.hsrmethods.org/ Agency for Healthcare Research & Quality: What Is Comparative Effectiveness Research http://effectivehealthcare.ahrq.gov/index.cfm/what-is-comparative-effectiveness-research1/ Alberta Innovates: Common misunderstandings in Project Ethics http://www.aihealthsolutions.ca/arecci/misunderstandings.php		
	Research Process: Skills Criteria ► Do you usually/regularly... Interpret EBP protocols for relevance to a care context? Participate in conducting literature reviews? Appraise research reports relative to a specific care delivery context? Integrate QI principles and activities into nursing practice? Work collaboratively with the team, including patients and their families, to enhance outcomes? Draw information from the healthcare system data using technology?					American Journal of Nursing: Evidence-Based Practice, Step by Step, online course http://www.nursingcenter.com/evidencebasedpracticenetwork/Home/Tools-Resources/Collections/AJN-EBP-Series.aspx Appraisal of Guidelines Research & Evaluation (AGREE) Instrument http://www.agreetrust.org/ Get More Out of Google http://9gag.com/gag/1836348		
	Research Process: Attitude Criteria ► Do you usually/regularly... Appreciate how practice can inform research and vice versa? Value nurses’ active engagement in QI and research activities? Appreciate diverse ways/ approaches to answer research questions?					Government of Canada: Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans http://www.pre.ethics.gc.ca/eng/policy-politique/initiatives/tcps2-eptc2/Default/ Webcast: TED Talk by Ben Goldacre: Battling bad science http://www.ted.com/talks/ben_goldacre_battling_bad_science.html		

Level 2 Research User: *The Nurse Using Research in Care Delivery Settings*

Check	Criteria	1	2	3	4	Recommended Learning Activities & Resources	Have I done this?	Learning Goals Met Date
	Data Analysis Literacy: Knowledge Criteria ► Do you usually/regularly... Understand application of descriptive and inferential statistics reported in research papers? Understand the main steps of each qualitative data analysis method? Articulate the meaning of descriptive and inferential statistics?					Data Analysis Literacy Resources Udacity: Elementary Statistics Course https://www.udacity.com/course/st095 Webcast: Rice University: Critical Reading and Evaluating Scientific and Medical Literature http://edtech.rice.edu/www/?option=com_iwebcast&action=details&event=2621		
	Data Analysis Literacy: Skills Criteria ► Do you usually/regularly... Summarize a dataset for a reason (e.g., to describe a sample of participants) using descriptive statistics? Use the most appropriate descriptive statistic according to the level of measurement of the variable of interest? Participate in QL data analysis activities? Conduct basic QL data analyses?					Webcast: Institute for Healthcare Improvement: Building Skills in Data Collection and Understanding Variation http://www.ihl.org/offering/VirtualPrograms/OnDemand/DataCollection_Variation/Pages/default.aspx		
	Data Analysis Literacy: Attitude Criteria ► Do you usually/regularly... Have a positive position in all research methodologies even if you are not skilled at conducting studies using all methodologies?							
	Knowledge Translation: Knowledge Criteria ► Do you know... How to transform research findings at your unit level? Who in your practice environment is the most appropriate person to bring your concerns to first, as they relate to evidence?					Knowledge Translation Resources University of Virginia: How to Lower the Work of Your Information Searches https://www.hsl.virginia.edu/collections/ebm/overview.cfm		
	Knowledge Translation: Skills Criteria ► Do you usually/regularly... Develop plans to change your practice environment in response to reported research findings? Apply EBP in routine nursing activities? Develop in collaboration with your colleagues in-service programs to provide an overview of the latest research findings in a specific topic in your practice?							
	Knowledge Translation: Attitude Criteria ► Do you usually/regularly... Appreciate KT activities for practice innovation? Support staff accessibility to research findings? Appreciate the importance of a Research Day within your practice environment with presentations and guest speakers?							

Level 2 Research User: *The Nurse Using Research in Care Delivery Settings*

Check	Criteria	1	2	3	4	Recommended Learning Activities & Resources	Have I done this?	Learning Goals Met Date
	Express your interest/willingness to lead KT activities in your practice environment?							

Examples that demonstrate competence	
Areas to learn and develop/ improve	

Level 3 Nurse Professional Development Tool
Research Competencies

Professional Standards Met?

Competency stage

1 Need learning & practice

2 Knowledgeable, but need practice

3 Competent

4 Expert: can teach others

Level 3 Research User: The Nurse Facilitating and Leading Research Use in Care Delivery Settings

Check	Criteria	1	2	3	4	Recommended Learning Activities & Resources	Have I done this?	Learning Goals Met Date
	<div>Research Process: Knowledge Criteria</div> <div>► Can you describe...</div> <div>Research facilitation role/ function?</div> <div>Emerging knowledge and best practices in facilitation of research and KT?</div> <div>Copyright laws and inform others to comply with them?</div> <div>Program/ organizational priorities for research use?</div> <div>Organizational and other resources to support research learning and KT?</div> <div>Role and benefits of research collaborations: - academic-practice? -interdisciplinary / interprofessional?</div> <div>Common barriers to research use in your unit / organization?</div> <div>Engagement strategies for novice and interested nurses in research and QI?</div>					<div>Research Process Resources</div> <div>Australian Bureau of Statistics: A guide for using statistics for evidence based policy http://www.abs.gov.au/ausstats/abs@.nsf/mf/1500.0</div> <div>British Journal of Nursing: Step-by-step guide to critiquing research. Part 1: quantitative research http://www.healthmantra.com/ortho/literature-review1.pdf</div> <div>Flinders University: Critiquing Research Articles http://www.flinders.edu.au/slc_files/Documents/Brochures/Critiquing%20Research%20Articles%202012.pdf</div> <div>CIHR: A Guide to Evaluation in Health Research http://www.cihr-irsc.gc.ca/e/45235.html</div>		
	<div>Research Process: Skills Criteria</div> <div>► Do you usually/regularly...</div> <div>Facilitate team identification of research and evaluation questions?</div> <div>Perform basic literature reviews and share results?</div> <div>Facilitate QI projects?</div> <div>Suggest a research design and discuss it with other research team members?</div> <div>Establish ongoing relationships with researchers to support practice-based research?</div>					<div>My M&E: Evaluation "Step by Step" Toolkit http://www.mymande.org/howto-recomm-page</div> <div>Northern Health: Developing a Research or Evaluation Question http://www.northernhealth.ca/Portals/0/Your_Health/Programs/Research_and_Evaluation/documents/DeterminingaResearchQuestion.pdf</div> <div>National Health Service Scotland: Leading Quality Improvement http://www.qihub.scot.nhs.uk/elearningmodules/Leading%20quality%20improvement/index.html</div>		
	<div>Research Process: Attitude Criteria</div> <div>► Are you usually/regularly...</div> <div>Embracing technology for QI and research purposes?</div>					<div>University of Toronto: The Literature Review: A Few Tips On Conducting It http://www.writing.utoronto.ca/advice/specific-types-of-writing/literature-review</div>		

Level 3 Research User: *The Nurse Facilitating and Leading Research Use in Care Delivery Settings*

Check	Criteria	1	2	3	4	Recommended Learning Activities & Resources	Have I done this?	Learning Goals Met Date
	Valuing mentorship activities to improve research knowledge and skills? Committed to collaborations for QI and research?					The Johns Hopkins University: <i>Introduction to Methods for Health Service Research and Evaluation</i> , online course http://ocw.ihsph.edu/index.cfm/go/viewCourse/course/HSRE/coursePage/index/ Webcast: American Interprofessional Health Collaborative: <i>Interprofessionalism in Practice: What are the Barriers and Incentives?</i> https://umconnect.umn.edu/p93131747/?launcher=false&fcsContent=true&pbMode=normal		
	Data Analysis Literacy: Knowledge Criteria ► Do you know... How to calculate basic statistical analyses to answer a research question? How to make inferences to the target population based on a sample size data collection? The most common potential pitfalls in making inferences?					Data Analysis Literacy Resources HC Marketplace: <i>Evidence-Based Practice in Nursing - A Guide to Successful Implementation</i> http://www.hcmarketplace.com/supplemental/3737_browse.pdf Microsoft: <i>Excel blog</i> http://blogs.office.com/b/microsoft-excel/		
	Data Analysis Literacy: Skills Criteria ► Do you usually/regularly... Draw inferences using an appropriate dataset? Use data management tools? Conduct simple/basic QN and QL data analyses?					Webcast: Statistics Learning Centre: <i>Choosing which statistical test to use</i> http://www.youtube.com/watch?v=rullUANOU3w		
	Data Analysis Literacy: Attitude Criteria ► Do you usually/regularly... Value the use of nurse-sensitive data to identify gaps in nursing performance?							
	Knowledge Translation: Knowledge Criteria ► Can you describe... KT best practices including theories and models to guide development of KT plans? How your workplace can support effective KT activities?					Knowledge Translation Resources Canadian Foundation for Healthcare Improvement: <i>Development of a Framework for Knowledge Translation: Understanding User Context</i> http://www.cfhi-fcass.ca/PublicationsAndResources/article/07-06-01/8475ae3a-37c8-4777-b2f7-293b8ee47511.aspx#sthash.7FcTe5hf.dpuf		
	Knowledge Translation: Skills Criteria ► Do you usually/regularly... Implement a KT project within your practice environment? Translate research findings into a user-friendly form for nurses and other front line staff? Use research-based evidence to address a unit-wide clinical problem?					Webcast: National Institutes of Health: <i>Bringing scientific evidence into clinical practice: challenges, successes and failures</i> http://videocast.nih.gov/summary.asp?Live=10259		
	Knowledge Translation: Attitude Criteria							

Level 3 Research User: *The Nurse Facilitating and Leading Research Use in Care Delivery Settings*

Check	Criteria	1	2	3	4	Recommended Learning Activities & Resources	Have I done this?	Learning Goals Met Date
	► Do you usually/regularly... Value new ways/ suggestions for nursing care delivery? Value a culture of research in your workplace?							

Examples that demonstrate competence	
Areas to learn and develop/ improve	

Level 4 Nurse Professional Development Tool
Research Competencies

Professional Standards Met?

Competency stage

1 Need learning & practice

2 Knowledgeable, but need practice

3 Competent

4 Expert: can teach others

Level 4 Research Producer: The Nurse as a Beginning Researcher

Check	Criteria	1	2	3	4	Recommended Learning Activities & Resources	Have I done this?	Learning Goals Met Date
	<div>Research Process: Knowledge Criteria</div> <div>► Can you describe...</div> <div>Differences and similarities among QN, QL and mixed method research designs?</div> <div>Theoretical frameworks that underpin various research methods?</div> <div>Challenges of measurement in QN studies?</div> <div>How to use spreadsheets, graphics, reference management, and statistical analyses programs?</div> <div>How to review a methodological publication (e.g., psychometric analysis of an instrument) and discuss the unclear areas with experts?</div> <div>How to conduct systematic and integrative literature reviews?</div> <div>The research funding process?</div> <div>Sources of expertise in statistics and information technology?</div>					<div>Research Process Resources</div> <div>Agency for Healthcare Research & Quality: Training Modules for the Systematic Reviews Methods Guide http://www.effectivehealthcare.ahrq.gov/index.cfm/tools-and-resources/slide-library/#slidetainingmodules</div> <div>BestThinking: Project Management in the Research Environment http://www.bestthinking.com/articles/science/applied_science/project-management-in-the-research-environment</div> <div>CIHR: The Art of Writing a CIHR Application http://www.cihr-irsc.gc.ca/e/45281.html</div> <div>Consortium for Healthcare Informatics Research: An Introductory Look at Statistical Text Mining for Health Services Researchers, webcast http://www.hsrp.research.va.gov/for_researchers/cyber_seminars/archives/chir-011212.cfm#.UoQ2JOKmbh8</div>		
	<div>Research Process: Skills Criteria</div> <div>► Do you usually/regularly...</div> <div>Read at least one peer-reviewed article per day?</div> <div>Develop/ update your CV to support research proposals?</div> <div>Identify research gaps, biases, and limitations (beyond those described by the authors) in research reports?</div> <div>Participate in writing applications for ethics approval?</div> <div>Collect data according to a study protocol as a research assistant?</div> <div>Develop logic models to plan, implement and evaluate the development of hospital-wide QI initiatives?</div>					<div>Government of Canada: The TCPS 2 Tutorial Course on Research Ethics (CORE) http://www.pre.ethics.gc.ca/eng/education/tutorial-didacticiel/</div> <div>Kraicer, Jacob, University of Toronto: The Art of Grantsmanship http://www.hfsp.org/funding/art-grantsmanship</div> <div>RAND Corporation: Guiding Good Research Biomedical Research Ethics and Ethics Review: Observatory on Health Research Systems http://www.rand.org/pubs/documented_briefings/DB536.html</div>		
	<div>Research Process: Attitude Criteria</div> <div>► Do you usually/regularly...</div>							

Level 4 Research Producer: *The Nurse as a Beginning Researcher*

Check	Criteria	1	2	3	4	Recommended Learning Activities & Resources	Have I done this?	Learning Goals Met Date
	Appreciate the diversity of different disciplines' perspectives in interprofessional research teams? Value the commitment to developing yourself as a researcher? Value continuing education in improving research activities?					Robert Wood Johnson Foundation: <i>Using Qualitative Methods in Healthcare Research</i> http://www.qualres.org/ Texas A&M University: <i>Focus Groups Tips for Beginners</i> http://www-tcall.tamu.edu/orp/orp1.htm Webcast: Agency for Healthcare Research and Quality: <i>Community-Based Participatory Research: Lessons for Stakeholder Engagement in Patient-Centered Outcomes Research</i> http://www.effectivehealthcare.ahrq.gov/index.cfm/tools-and-resources/ehc-program-webcasts/community-based-research/ Webcast: CIHR: <i>Canadian Common CV Tips and Tricks for CIHR Applicants</i> http://www.youtube.com/watch?v=DKKPrgn1ESI&feature=youtu.be		
	Data Analysis Literacy: Knowledge Criteria ► Do you know... Advanced statistical techniques and methods for qualitative data analyses? How to present your research work in colleagues and/or experts in a conference to get feedback?					Data Analysis Literacy Resources Learning Qualitative Data Analysis on the Web, University of Huddersfield: Coding in qualitative data analysis https://www.youtube.com/user/GrahamRGibbs		
	Data Analysis Literacy: Skills Criteria ► Do you usually/regularly... Accurately analyze the collected data in your research projects?					University of Illinois: <i>Multivariate Statistical Analysis</i> http://istics.net/pdfs/multivariate.pdf University of London: <i>Introduction to SPSS & NVivo</i> http://doctoralschool.ioe.ac.uk/index.php?option=com_content&task=view&id=910		
	Data Analysis Literacy: Attitude Criteria ► Do you usually/regularly... Value good quality of a research process? Appreciate the integrity of conducting research? Value continuing learning to advance skills and knowledge as a researcher?					University of Plymouth: <i>Numeracy and Quantitative Methods</i> http://dspace.jorum.ac.uk/xmlui/bitstream/handle/10949/15934/FINAL%20Numeracy_and_Quantitative_Methods_a_Module_Summary.pdf?sequence=2		
	Knowledge Translation: Knowledge Criteria ► Can you describe... The requirements of research funders for implementation of KT activities within the research process? How to teach colleagues to integrate evidence into practice or to conduct high quality research projects? How to write a grant, its budget for KT funds, and to plan KT					Knowledge Translation Resources British Journal of Cardiac Nursing: <i>Planning, developing and writing an effective conference abstract</i> http://www.baccnconference.org.uk/downloads/AbstractWriting.pdf CIHR: <i>Guide to Knowledge Translation Planning at CIHR: Integrated and</i>		

Level 4 Research Producer: *The Nurse as a Beginning Researcher*

Check	Criteria	1	2	3	4	Recommended Learning Activities & Resources	Have I done this?	Learning Goals Met Date
	activities for the study findings? Methods to evaluate the effectiveness of KT activities?					End-of-Grant Approaches http://www.cihr-irsc.gc.ca/e/45321.html		
	Knowledge Translation: Skills Criteria ▶ Do you usually/regularly... Write research reports for presentations and publications? Collaborate with others to organize conferences? Collaborate with knowledge users to build relationships and networks to support KT activities? Implement and evaluate theory-informed KT plans?					Colorado State University: Poster Design Tips and Techniques http://www.ext.colostate.edu/staffres/poster.pdf Fraser Health: KTE Toolkit http://research.fraserhealth.ca/knowledge_transfer/knowledge-transfer-toolkit/knowledge_transfer_%26_exchange_kte_toolkit Institute for Work and Health: A Knowledge Transfer Planning Guide http://www.iwh.on.ca/from-research-to-practice		
	Knowledge Translation: Attitude Criteria ▶ Do you usually/regularly... Value committed researchers to integrate research and practice activities as part of their professional research work? Attend KT conferences and bring back ideas from new KT models to share with your staff?					Purdue University: Writing Scientific Abstracts https://owl.english.purdue.edu/owl/resource/706/01/ UK National Institute for Health and Clinical Excellence: Integrative Approaches to Qualitative and Quantitative Evidence http://www.nice.org.uk/niceMedia/pdf/Integrative_approaches_evidence.pdf University of Illinois: Evidence-Based Nursing Teaching Tutorial http://gollum.lib.uic.edu/nursing/ University of Manitoba: How to Write a Good Scientific Paper? http://umanitoba.ca/biomedical_engineering/media/pdf/SciPaperWritingFeb21.pdf Webcast: AcademyHealth: Grey Lit 103: Standing Out in a Sea of Grey Literature http://www.academyhealth.org/Training/ResourceDetail.cfm?ItemNumber=7068		

Examples that demonstrate competence	
Areas to learn and develop/ improve	

Level 5 Nurse Professional Development Tool
Research Competencies

Professional Standards Met?

Competency stage

1 Need learning & practice

2 Knowledgeable, but need practice

3 Competent

4 Expert: can teach others

Level 5 Research Producer: The Nurse as a Research Scientist Leading a Program of Research

Check	Criteria	1	2	3	4	Recommended Learning Activities & Resources	Have I done this?	Learning Goals Met Date
	<div>Research Process: Knowledge Criteria</div> <div>▶ Do you know...</div> <div>How to synthesize research findings that can address practice issues?</div> <div>How to read and regularly critique empirical literature as a habit?</div> <div>How to focus on the Methods section to understand and justify authors' decisions?</div> <div>How to request experts' advice, if the methods used in a research report are not clear?</div> <div>How to independently develop a research proposal?</div> <div>How to seek funding for your research project?</div> <div>Software programs to analyze qualitative and quantitative data?</div> <div>How to present evaluation strategies to an inter-professional research team?</div> <div>How to describe current technological strategies to support your own research program?</div>					<div>Research Process Resources</div> <div>University of BC School of Nursing: PhD Program http://www.nursing.ubc.ca/Graduate/PHD.aspx</div> <div>University of Victoria School of Nursing: PhD Program http://www.uvic.ca/hsd/nursing/prospective/graduate/phd/index.php</div> <div>Australian National University Academic Skills & Learning Centre: Research Proposals https://academicskills.anu.edu.au/resources/handouts/research-proposals</div>		
	<div>Research Process: Skills Criteria</div> <div>▶ Do you regularly/usually...</div> <div>Lead a research team?</div> <div>Independently develop a research proposal and/or QI protocols as a principal investigator or co-PI?</div> <div>Direct operations of a research unit?</div> <div>Develop partnerships with various stakeholders (e.g., knowledge users, decision and policy makers) to support research projects?</div> <div>Supervise/coordinate, as a mentor, graduate students, clinical nurses and/or new researchers?</div> <div>Use research findings to influence policy and convince policy-makers?</div> <div>Participate in teamwork as an expert to consult stakeholders?</div> <div>Synthesize research findings from various sources?</div>							

Level 5 Research Producer: *The Nurse as a Research Scientist Leading a Program of Research*

Check	Criteria	1	2	3	4	Recommended Learning Activities & Resources	Have I done this?	Learning Goals Met Date
	Independently develop a research proposal or a QI project? Identify threats to ethics during the research process? Write academic papers for publication? Present research findings in peer-reviewed conferences and/or in Suggest application of research findings for practice improvement? Seek funding for research projects? Use various software programs to analyze qualitative and quantitative data? Seek advice/consultation of experts? Use technology to virtually meet with your research team on a regular basis?							
	Research Process: Attitude Criteria ► Do you usually/regularly... Appreciate research endeavors as a means to improve healthcare delivery and outcomes? Value ethical review process and advocate against fraud and deceit science?							
	Data Analysis Literacy: Knowledge Criteria ► Do you know... How to weigh the appropriateness of various ways of analyzing data generated from different research methods? How to explain each step of research publications that you read every day?					Data Analysis Literacy Resources University of Manchester: Practical considerations for leading and working on a mixed methods project http://www.socialsciences.manchester.ac.uk/realities/resources/toolkits/mixed-method-working/11-toolkit-mixed-method-working.pdf		
	Data Analysis Literacy: Skills Criteria ► Do you usually/regularly... Work with large datasets and supervise data cleaning processes? Interpret research findings as an expert? Share your data based on agreements? Maintain high standards of research integrity?					Web Center for Social Research Methods: Selecting Statistics http://www.socialresearchmethods.net/selstat/ssstart.htm		
	Data Analysis Literacy: Attitude Criteria ► Do you usually/regularly... Appreciate advanced statistical techniques and other (qualitative) methods to analyze data? Value open access data for public benefit?							
	Knowledge Translation: Knowledge Criteria ► Do you know... How to incorporate a KT plan and exchange in a research program? How to disseminate, diffuse, and apply research findings in					Knowledge Translation Resources American Evaluation Association: Representing Stakeholder Values Through Effective Communication of Findings http://comm.eval.org/EVAL/Resources/ViewDocument/?DocumentKey=aa1749c1-e421-4f9d-		

Level 5 Research Producer: *The Nurse as a Research Scientist Leading a Program of Research*

Check	Criteria	1	2	3	4	Recommended Learning Activities & Resources	Have I done this?	Learning Goals Met Date
	various contexts using KT models?					84e9-829ba3816058 Canadian Foundation for Healthcare Improvement: <i>Revisiting Interaction in Knowledge Translation</i> http://www.cfhi-fcass.ca/PublicationsAndResources/ResearchReports/articleview/08-07-01/995bd0cf-efbc-4ed3-a676-bbb28680ab88.aspx		
	<i>Knowledge Translation: Skills Criteria</i> ► <i>Do you usually/regularly...</i> Implement KT strategies in your own research program? Build capacity for successful KT activities? Exhibit advanced presentation skills to disseminate your research findings? Act as a mentor to support staff (e.g. leads journal clubs, supervises research assistants, lead teams in the implementation of evidence-based findings)?					Community Alliance for Research and Engagement: <i>Beyond Scientific Publication: Strategies for Disseminating Research Findings</i> http://www.researchtoolkit.org/index.php/disseminating-and-closing-research Oncology Nursing Society: <i>Designing & Creating a Journal Club</i> http://www.ons.org/publications/media/ons/docs/publications/journalclubtoolkit.pdf		
	<i>Knowledge Translation: Attitude Criteria</i> ► <i>Do you usually/regularly...</i> Value research findings as a means to improve health outcomes and generally benefit the public? Appreciate teamwork in conducting research as a means to build capacity and disseminate findings in consultation with knowledge users?					Webcast: National Cancer Institute: <i>Dialogue on Dissemination: A Policy Perspective</i> https://researchtoreality.cancer.gov/node/106 Webcast: National Cancer Institute: <i>Dialogue on Dissemination: A Practitioner Perspective</i> https://researchtoreality.cancer.gov/node/105 Webcast: National Cancer Institute: <i>Dialogue on Dissemination: A Researcher Perspective</i> https://researchtoreality.cancer.gov/node/132 Webcast: University of Oxford: <i>New Forms of Scholarly Communications: Opportunities and Challenges</i> http://webcast.oii.ox.ac.uk/?view=Webcast&ID=20120312_422		

Examples that demonstrate competence	
Areas to learn and develop/ improve	