



**DEPARTMENT Nursing Education & Health**

**Studies COURSE OUTLINE – FALL 2019**

**NS3010 (EC): Nursing Research – 3 (3-0-0) 45 Hours for 15 Weeks**

September 4 - December 6/2019 (Exam week December 9-20/2019)

**INSTRUCTOR:** Sue Styles MSN, RN      **PHONE:** 780.832.7669  
**OFFICE:** Off-campus      **E-MAIL:** [sstyles@gprc.ab.ca](mailto:sstyles@gprc.ab.ca)  
**OFFICE HOURS:** By Appointment

**CALENDAR DESCRIPTION:**

Introduction to the process of research through a comparative analysis of selected studies exemplifying different theoretical, methodological and analytical approaches. Emphasis is on the communicability of research, the needs of the research consumer, and the development of skills of critical appraisal.

**COURSE DESCRIPTION:**

Nursing Research is an introduction to the process of research through critical appraisals of selected quantitative and qualitative studies. Emphasis will be on understanding the research process and in knowing how to critically read, analyze and begin to apply the knowledge gained from research in practice. The focus of this course will be the planning phase of the research process which includes: research problem and purpose, literature review, theoretical/conceptual frameworks, variables, research questions and hypotheses, ethics of research, research designs, and population and samples. Also included are descriptive statistics.

Students will continue to develop their skills to critically read, analyze and begin to use knowledge gained from research in their practice. The focus of this course is on the implementing phase (data collection, data analysis, interpretation of findings). Students will also examine trends and issues in developing evidenced-based practice for the profession of nursing. Also included in this course are inferential statistics.

**PREREQUISITE(S)/COREQUISITE:**

Statistics elective

**DELIVERY MODE(S):**

Online

**REQUIRED TEXT/RESOURCE MATERIALS:**

LoBiondo-Wood, G., Haber, J., Cameron, C. & Singh, M.D. (2018). *Nursing research in Canada: Methods, critical appraisal, and utilization* (4<sup>th</sup> Canadian ed.). Toronto, ON: Elsevier Canada.

**RECOMMENDED JOURNALS:**

Canadian Journal of Nursing Research  
Clinical Nursing Research

Western Journal of Nursing Research  
Evidence-Based Nursing

**COURSE OBJECTIVES:**

1. Describe the purpose and importance of research in nursing.
2. Describe how theory, practice and research are related.
3. Describe the role of nurses in research.
4. Apply critiquing criteria for the critical analysis of the following sections of a research report: research problem and purpose, literature review, theoretical/conceptual framework, variables, research questions and hypotheses, research design, ethical components, population, sample, and sampling procedures.
5. Compare the major characteristics, strengths and limitations of quantitative and qualitative research.
6. Explain the meaning of internal and external validity of research.
7. Describe the four levels of measurement.
8. State the purpose of descriptive statistics.
9. Critically analyze the descriptive statistics used in published reports.
10. Discuss the types, advantages, and limitations of data collection methods used in both quantitative and qualitative nursing research methods.
11. Identify the criteria for determining the validity and reliability of measurement tools.
12. Discuss the criteria for determining confirmability of findings in a qualitative study.
13. Identify appropriate data collection methods for various qualitative and quantitative designs.
14. Differentiate data analysis methods for both quantitative and qualitative research.
15. Identify the purpose of and appropriateness of commonly used inferential statistics.
16. Distinguish between type I and type II errors and their effects on findings.
17. Differentiate between the meanings of statistical significance and clinical significance.
18. Apply critiquing criteria for an analysis of a complete research report.
19. Determine the applicability of knowledge gained from research for evidence-based practice.
20. Identify the role of a nurse in promoting research activities and using knowledge from research in the practice settings.
21. Discuss issues including barriers and facilitating factors influencing the advancement of nursing research and evidence-based practice.

**LEARNING OUTCOMES:**

1. Understand the use of research findings for clinical decision-making.
2. Appreciate the use of the scientific method of inquiry for acquiring knowledge.
3. Develop and refine researchable questions from nursing practice.
4. Conduct literature searches, using a variety of library databases.
5. Compare the major characteristics, strengths, and limitations of quantitative and qualitative research designs.
6. Critically analyze the following sections of research reports: research problem and purpose, literature review, variables, research questions and hypotheses, research design, ethical considerations, population and sample, data collection techniques, data analysis, and research findings.
7. Explore the ethical considerations in the conduct of research.
8. Determine application of research findings to clinical practice.

**LEARNING ACTIVITIES:**

**Students will participate in a number of activities to assist in meeting the objectives of the course:**

**1. Discussion Forum Value: 20% of final grade**

The purpose of the discussion forum is to highlight primary concepts of the research process and to develop the student’s ability to demonstrate their understanding through discussion and participation in replying to other students’ comments. Essential concepts related to nursing research will be discussed. Additionally, students will have the opportunity to discuss group critiques of selected articles to assist in understanding the concepts.

Each student will post an original discussion and then respond to at least one other student’s original posting. Each student should also respond to any questions or comments that their own posting may have generated. Posting should be grammatically correct, with few to no spelling errors, and referenced as needed. Each forum will be given a percentage for participation. Please see the individual forum for the percentage.

**2. Work Sheet Handouts Value: 10% of final grade**

The purpose of this activity is to provide students with the opportunity to apply what they have learned in completing a work sheet that corresponds with the information that has been studied.

Some work sheets will be handed in, others will be for the student’s own learning. Handed in work sheets will be worth a percentage.

**3. Small Group Work Value: 20% of final grade**

The purpose of this activity is to provide students with an opportunity to critique selected aspects of a published research study using the critiquing guidelines. Students are expected to read each assigned research report and answer the critiquing questions/guidelines. There will be two different opportunities, one qualitative article and one quantitative article, to work on together.

Students are encouraged to work in small groups, of no more than three, to complete their critique (answer the critique questions) of the aspects of the assigned study.

**See Appendix A (qualitative critique) and Appendix B (quantitative critique).**

The <b>qualitative</b> critique will be worth	10%
The <b>quantitative</b> critique will be worth	10%

**COURSE SCHEDULE/TENTATIVE TIMELINE:**

<b>Date</b>	<b>Topic</b>
<b>Week 1 Sept 4- 11/2019</b>	<b>Introduction to the course; Chp 1; discussion forum</b>
<b>Week 2 Sept 12-18/2019</b>	<b>Chp 2, Chp 3; discussion forum; worksheet</b>
<b>Week 3 Sept 19-25/2019</b>	<b>Chp 5, Chp 6; discussion forum</b>
<b>Week 4 Sept 26-Oct 2/2019</b>	<b>Chp 4, review Chp 1-6, worksheet; Zoom session</b>
<b>Week 5 Oct 3-9/2019</b>	<b>Chp 7; worksheet</b>
<b>Week 6 Oct 10-16/2019</b>	<b>Chp 8; discussion forum</b>
<b>Week 7 Oct 17-23/2019</b>	<b>Chp 12, Chp 13, Chp 14; discussion forum</b>
<b>Week 8 Oct 24 –Oct 30/2019</b>	<b>Chp 15; Zoom session; qualitative critique due Wed. Oct 30/2019 @ 0830 a.m.</b>
<b>Week 9 Oct 31-Nov 6/2019</b>	<b>Midterm- Qualitative exam –Mon. Nov 4/2019 @ 1430-1630 Rm-TBA</b>
<b>Week 10 Nov 7-13/2019</b>	<b>Chp 9 ; discussion forum</b>
<b>Week 11 Nov 14-20/2019</b>	<b>Chp 10, Chp 11; discussion forum; worksheet</b>
<b>Week 12 Nov 21-Nov 27/2019</b>	<b>Chp 12, Chp 13, Chp 14; discussion forum; worksheet</b>
<b>Week 13 – Nov 28- Dec 6/2019</b>	<b>Chp 16; Zoom session; quantitative critique due Fri. Dec 6/2019 @0830 a.m.</b>
<b>Week 14 – exam week &gt; Dec 9-20/2019</b>	<b>Quantitative exam – date/location TBA</b>

**EVALUATION for NS 3010:**

<b>Evaluation</b>	<b>DUE Date and Time:</b>	<b>Weighting</b>
<b>Discussion Forum</b>	Weekly (usually)– Refer to Course Schedule/Tentative Timeline	20%
<b>Work Sheet Handouts</b>	Refer to Course Schedule/Tentative Timeline	10%
<b>Small Group Work</b>		
Qualitative Critique	Oct 30/2019 @ 0830 a.m.	10%
Quantitative Critique	Dec 6/2019 @ 0830 a.m.	10%
<b>Online Examination</b>		
Qualitative Exam	November 4/2019 @ 1430-1630 Rm TBA	25%
Quantitative Exam	Exam week in December– date/location TBA	25%
<b>Total</b>		100%

**EVALUATION/GRADING DESCRIPTORS:****Discussion Forum Grading Rubric**

<b>Grade</b>	<b>Description</b>
<b>A Excellent</b>	Responds directly to the question specified in the assignment, is respectful, positive, non-judgmental and professional in tone and use of language. Demonstrates an understanding of the material through multiple supportive examples. Invites more discussion by introducing a new idea or adding to the original idea. APA, grammar, and spelling are excellent.
<b>B Very Good</b>	Responds mostly to the questions specified in the assignment, is usually respectful, positive, non-judgmental and professional in tone and use of language. For the most part, demonstrates an understanding of the material through at least two supportive examples. Invites more discussion by asking a question of fellow participants. APA, grammar, and spelling need only a few corrections.
<b>C Satisfactory</b>	Barely responds to the questions specified in the assignment, mostly receptive, positive, non-judgmental and professional in tone and use of language. Demonstrates an understanding of the material although does not provide any supportive examples. Does not invite discussion by introducing a new idea or adding to the original idea. APA, grammar, and spelling need constant correction.
<b>D Minimal Pass</b>	Skims over the question, less receptive, positive, non-judgmental and professional in tone and use of language. Slightly demonstrates an understanding of the material and does not provide supportive examples. No introduction of a new idea or adding to the original idea. APA, grammar, and spelling need constant correction.
<b>F Fail</b>	Question not answered, language not professional, no demonstration of an understanding of the material, and APA, grammar, and spelling need constant correction.

**Work Sheet Grading Rubric**

<b>Grade</b>	<b>Description</b>
<b>A</b>	80% or greater on the worksheet
<b>B</b>	70% to 79.9% on the worksheet
<b>C</b>	60% to 69.9% on the worksheet
<b>D</b>	50% to 59.9% on the worksheet
<b>F</b>	0% to 49.9% on the worksheet

### Small Group Work Rubric > Critique of a Research Report

**To complete the critique of a research report, students use the applicable critique guidelines/questions document provided in the course.**

Grade	Expectations
<b>A</b>  <b>Excellent</b>	<ul style="list-style-type: none"> <li>• All sections of the overall critique guidelines are completed.</li> <li>• The sections are answered objectively and critically with a comprehensive rationale (brief and succinct) identifying both strengths and weaknesses of the study.</li> <li>• Clear and in-depth understanding of the article.</li> <li>• Critique content is clearly articulated with exceptional spelling, grammar and use of APA guidelines. Exceptional referencing throughout paper.</li> </ul>
<b>B</b>  <b>Very good</b>	<ul style="list-style-type: none"> <li>• Most sections of the overall critique guidelines are completed.</li> <li>• The sections are answered objectively and critically most times with a comprehensive rationale identifying both strengths and weaknesses of the study.</li> <li>• Clear understanding of the article.</li> <li>• Content is mainly clear, with few spelling and grammatical errors. APA format requires minimal revision. Paper is well referenced and detailed with minimal errors.</li> </ul>
<b>C</b>  <b>Satisfactory</b>	<ul style="list-style-type: none"> <li>• The core critiquing sections are mostly completed.</li> <li>• The sections are answered mostly objectively but lack conciseness or depth in rationale. Information identifies some strengths and weakness to the study and provides a few examples to support answers.</li> <li>• General understanding of the article but unclear about some aspects.</li> <li>• Content is moderately clear, with several spelling and grammatical errors. APA format requires some revision. Provided referencing although not all information included. Provided referencing although not all information included.</li> </ul>
<b>D</b>  <b>Minimal Pass</b>	<ul style="list-style-type: none"> <li>• Core critiquing sections are missing.</li> <li>• Critique answers are not objective. The sections are answered superficially and are missing key rationale or rationale is incorrect. Identifies minimal strengths and weakness to the study and provides minimal examples to support answers.</li> <li>• Lack of understanding of the research article is evident.</li> <li>• Content is slightly clear/ minimally understandable. Frequent spelling and grammatical errors. APA format requires considerable revision with poor or inadequate referencing used.</li> </ul>

<p><b>F</b> <b>Fail</b></p>	<ul style="list-style-type: none"> <li>• Most sections are missing/ not completed.</li> <li>• Critique answers are incomplete or incomprehensible.</li> <li>• Little or no understanding evident related to the strengths and weaknesses of the study with no examples to support answers.</li> <li>• No understanding of the study evident in paper.</li> <li>• Content is unclear. Many spelling and grammatical errors with little or no use of APA format. Paper is plagiarized, lack of referencing.</li> </ul>
---------------------------------	--

**Qualitative Exam**

**25%**

This online exam is CLOSED BOOK. The exam will be written in a computer lab at GPRC campus.

This exam will cover the material, specifically related to **qualitative** research, which has been covered in the previous seven weeks. This will be an online exam which can be accessed for a specified amount of time. Once this exam is started it will need to be finished in one sitting within a two hour time limit.

**Quantitative Exam**

**25%**

This online exam is CLOSED BOOK. The exam will be written in a computer lab at GPRC campus.

This exam will cover the material, specifically related to **quantitative** research, which has been covered in the previous seven weeks. This will be an online exam which can be accessed for a specified amount of time. Once the exam is started it will need to be finished in one sitting within a two hour time limit.

**GRADING CRITERIA**

- A grade will be assigned for each assignment using grading criteria and based on the grade descriptors (excellent, good, satisfactory, poor). Rationale will be given as to the assigned grade.
- Students **may** receive a grade of D or D+ in an assignment or component of a course, but must have an overall grade of C- to achieve a passing grade in a nursing course.
- *Note: Refer to the 2019-2020 GPRC calendar for further details regarding the grading policy and the Progression Criteria in the Bachelor of Science in Nursing program.*  
<https://www.gprc.ab.ca/programs/calendar/>

GRANDE PRAIRIE REGIONAL COLLEGE			
GRADING CONVERSION CHART			
Alpha Grade	4-point Equivalent	Percentage Guidelines	Designation
A <sup>+</sup>	4.0	90 – 100	EXCELLENT
A	4.0	85 – 89.9	
A <sup>-</sup>	3.7	80 – 84.9	VERY GOOD FIRST CLASS STANDING
B <sup>+</sup>	3.3	77 – 79.9	
B	3.0	73 – 76.9	GOOD
B <sup>-</sup>	2.7	70 – 72.9	
C <sup>+</sup>	2.3	67 – 69.9	SATISFACTORY
C	2.0	63 – 66.9	
C <sup>-</sup>	1.7	60 – 62.9	

**These are considered passing grades in Nursing courses.**

**These are NOT considered passing grades in Nursing courses.**

D <sup>+</sup>	1.3	55 – 59.9	POOR
D	1.0	50 – 54.9	MINIMAL PASS
F	0.0	0 – 49.9	FAIL
WF	0.0	0	FAIL, withdrawal after the deadline

## IMPORTANT POLICIES/ACADEMIC INFORMATION

### STUDENT RESPONSIBILITIES:

**All GPRC academic and administrative policies, including student rights and responsibilities may be viewed in their entirety online at <https://www.gprc.ab.ca/about/administration/policies/>**

### Important Dates:

See 2019-2020 GPRC Academic Calendar for important dates and information i.e. last day to change registrations and dropping full-year courses <https://www.gprc.ab.ca/programs/calendar/>

### STATEMENT ON PLAGIARISM AND CHEATING:

**We expect honesty/academic integrity from our students.** This demands that the contribution of others be acknowledged (GPRC Calendar, 2019-2020). Penalties will be given according to the degree of the plagiarism or cheating. If you are unsure whether an action is plagiarism or not, please consult your instructor. Cheating refers to dishonest conduct such as speaking in an exam, bringing written material not authorized by the instructor, tampering with grades, having others complete your schoolwork or consciously aiding another student to cheat, etc.

For a more precise definition of plagiarism and its consequences, refer to the Student Conduct section of the GPRC Academic Calendar at <http://www.gprc.ab.ca/programs/calendar/> ; also refer to the GPRC Student Misconduct: Academic and Non-Academic Policy <https://www.gprc.ab.ca/about/administration/policies/>

### Nursing Program Policies

Please refer to the 2019-2020 *GPRC Academic calendar* and the *University of Alberta Collaborative Baccalaureate Nursing Program with Grande Prairie Regional College Student Handbook 2019-2020* for specific nursing program policies that may pertain to this course.

### Assignment Policy:

NS 3010 assignments are due at the date and time they are due. Extensions on assignments may be granted and must be negotiated with the instructor prior to the due date and with a date specified for late submissions. Extensions will not be granted the day the assignment is due.

A penalty of one letter grade per day will be deducted from the final grade of a late assignment. For example, an assignment graded at a C would receive an adjusted grade of C- if handed in one day late.

It is the responsibility of the student to ensure electronically submitted papers and assignments are delivered and retrievable to the instructor (i.e. emailing assignments). If the instructor is unable to open documents or if documents are sent in error via electronically, the assignment will be considered late and the student will have one letter grade deducted from the final grade. It is highly recommended that students ensure their assignments have been retrieved by the instructor prior to the due date and time.

***UNIVERSITY TRANSFER (If applicable):***

**\*\* Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions.**

**Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability.**

Please refer to the Alberta Transfer guide for current transfer agreements:

[www.transferalberta.ca](http://www.transferalberta.ca)

## Appendix A

### Qualitative Critique Assignment

- Students will choose one article from the three different qualitative research articles posted on the Moodle NS3010 homepage (scroll to bottom of homepage) and complete **'Critiquing Questions for Qualitative Research'**. **These questions are found below (see Appendix A1 and Appendix A2), they are also found in your textbook on p. 397/398, and the questions are also in a word document posted at the bottom of Moodle NS3010 homepage proximal to the qualitative research articles for critique.** Note: There are two different 'critiquing questions' documents for qualitative research (one for ethnography/phenomenology and one for ground theory research study). Choose the appropriate 'Critiquing Questions for Qualitative Research' document for the qualitative research study that you select.
- Students may work independently, in pairs, or in groups of three. If completing the critique as a group of two/three, provide one assignment submission with names of group members; all group members will receive the same mark.
- The critique may be written in point form, but must respond to the critiquing guidelines/questions noted earlier.
- Prepare the assignment with APA formatting (Title page, running head, page #'s, heading). An abstract is not required. Title page must include the name of the article being critiqued and the group member's names.
- When submitting the assignment. One group member will submit in the appropriate Drop Box in the NS 3010 course in Moodle.
- For grading criteria: In NS 3010 course outline- See Evaluation/grading criteria > Small Group Work – Critique of a Research Report

## Appendix A1

### NS 3010 EC F19

#### Critiquing Questions for **Qualitative** Research Articles for the **Ethnography/Phenomenology** articles

**Name of student/students submitting critique:**

**Title of critique article:**

Textbook: LoBiondo-Wood, G., Haber, J., Cameron, C. & Singh, M.D. (2018). *Nursing research in Canada: Methods, critical appraisal, and utilization* (4<sup>th</sup> Canadian ed.). Toronto, ON: Elsevier Canada. (page 397 Box 18.1)

#### **Statement of the phenomenon of interest (Chp 4)-**

1. What is the phenomenon of interest? Is this clearly stated for the reader?
2. What is the justification for using a qualitative method?
3. What are the philosophical underpinnings of the research method?

#### **Purpose (Chp 4)**

4. What is the purpose of the study?
5. What is the projected significance of the work for nursing?

#### **Method (Chp 8)**

6. Is the method used to collect the data compatible with the purpose of the research?
7. Is the method adequate for addressing the phenomenon of interest?
8. If a particular approach is used to guide the inquiry, does the researcher complete the study according to the processes described?

#### **Sampling (Chp 12)**

9. What type of sampling is used? Is it appropriate for the particular method?
10. Are the participants who were chosen appropriate for informing the research?

#### **Data Collection (Chp 7, 8 and 13)**

11. Are the data to be collected focused on human experience?
12. Does the researcher describe the data-collection strategies (e.g. interview, observation, field notes)?
13. What are the procedures for collecting the data?
14. Is the protection of human participants addressed?
15. Is saturation of the data described?

#### **Data Analysis (Chp 14, 15)**

16. What strategies are used to analyze the data?
17. Has the researcher reported the data truthfully?
18. Does the researcher describe the steps used for the data analysis?
19. Does the researcher address the credibility, auditability, and fittingness of the data? (See Chp 14 for a complete discussion.)

**Credibility**

- 19a. Do the participants recognize the experience as their own?
- 19b. Has adequate time been allowed to fully understand the phenomenon?

**Auditability**

- 19c. Can the reader follow the researcher's thinking?
- 19d. Does the researcher document the research process

**Fittingness**

- 19e. Are the findings applicable outside of the study situation?
- 19f. Are the results meaningful to individuals not involved in the research?
- 19g. Is the strategy used for analysis compatible with the purpose of the study?

**Findings (Chp 7 , 17)**

20. Are the findings presented within a context?
21. Is the reader able to apprehend the essence of the experience from the report of the findings?
22. Do the researcher's conceptualizations accurately reflect the data?
23. Does the researcher place the report in the context of what is already known about the phenomenon? Was the existing literature on the topic related to the findings?

**Conclusion, Implications, and Recommendations (Chp 17)**

24. Do the conclusions, implications and recommendations give the reader a context in which to use the findings?
25. Do the conclusions reflect the study findings?
26. What are the recommendations for future study? Do they reflect the findings?
27. How has the researcher made explicit the significance of the study for nursing theory, research, or practice?

## Appendix A2

### NS 3010 EC F19 Critiquing Questions for **Qualitative** Research – **Grounded Theory Articles**

**Name of student/students submitting critique:**

**Title of critique article:**

Textbook: LoBiondo-Wood, G., Haber, J., Cameron, C. & Singh, M.D. (2018). *Nursing research in Canada: Methods, critical appraisal, and utilization* (4<sup>th</sup> Canadian ed.). Toronto, ON: Elsevier Canada. (page 398 Box 18.2)

#### **Focus/Topic (Chp 4, 8)**

1. What is the focus or the topic of this study? What is it that the researcher is studying? Is the topic researchable? Is it focused enough to be meaningful but not too limited so as to be trivial?
2. Has the researcher identified why the phenomenon requires a qualitative format? What is the rationale for selecting the grounded theory approach as the qualitative approach for the investigation?

#### **Purpose (Chp 4)**

3. Has the researcher made explicit the purpose for conducting the research?

#### **Significance (Chp 4)**

4. Has the researcher described the projected significance of the work for nursing?
5. What is the relevance of the study to what is already known about the topic?

#### **Method (Chp 8)**

6. In view of the topic of study and the researcher's stated purpose, how does grounded theory methodology help to achieve the stated purpose?
7. Is the method adequate for addressing the research topic?
8. What approach is used to guide the inquiry? Does the researcher complete the study according to the processes described?

#### **Sampling (Chp 8, 12)**

9. Does the researcher describe the selection process and protection of human participants?
10. What major categories emerged?
11. What were some of the events, incidents, or actions on which these major categories were based?
12. What categories led to theoretical sampling?

#### **Data Generation (Chp 8, 13)**

13. Does the researcher describe the data collection strategies?
14. Have participants been allowed to guide the direction of the inquiry?
15. How did theoretical formulations guide the data collection?

Data Analysis (Chp 8, 15)

16. Does the researcher describe the strategies used to analyze the data?
  - 16a. Has the theoretical construction been checked against the participant' descriptions of the phenomenon?
  - 16b. Are the researcher's views and insights about the phenomenon articulated?
  - 16c. Has each category that emerged in the theory been described previously in the literature?
17. How does the researcher address the credibility, auditability, and fittingness of the data?
18. Does the researcher clearly describe how and why the core category was selected?

**Empirical Grounding of the Study Findings (Chp 8, 15)**

19. Are the concepts grounded in the data?
20. How are the concepts systematically related?
21. Are conceptual linkages described, and are the categories well developed? Do they have conceptual density (in-depth conceptual discussion)?
22. Are the theoretical findings significant? If so, to what extent?
23. Were the data collection strategies comprehensive, and were analytical interpretations conceptual and broad?
24. Is variation in the interpretations sufficient to allow for applicability in a variety of contexts related to the phenomenon investigated?

**Conclusions, Implications and Recommendations (Chp 8, 17)**

25. How do the conclusions, implications, and recommendations provide context in which to use the findings?
26. Are the conclusions drawn from the study appropriate? Explain.
27. What are the recommendations for future research?
28. Are the recommendations, conclusions, and implications clearly related in the findings?

## Appendix B

### Quantitative Critique Assignment

- Students will choose one article from the three different quantitative research articles posted on the Moodle NS3010 homepage (scroll to bottom of homepage) and complete **‘Critiquing Questions for Quantitative Research’**. **These questions are found below (see Appendix B1), they are also found in your textbook on page 435 (Box 19.1) and the questions are also in a word document posted at the bottom of Moodle NS3010 homepage proximal to the quantitative research articles for critique.**
- Students may work independently, in pairs, or in groups of three. If completing the critique as a group of two/three, provide one assignment submission with names of group members; all group members will receive the same mark.
- The critique may be written in point form, but must respond to the critiquing guidelines/questions noted earlier.
- Prepare the assignment with APA formatting (Title page, running head, page #'s, heading). An abstract is not required. Title page must include the name of the article being critiqued and the group member's names.
- When submitting the assignment. One group member will submit in the Drop Box on Moodle.
- For grading criteria: In NS 3010 course outline- See Evaluation/grading criteria > Small Group Work – Critique of a Research Report.

## Appendix B1

### NS 3010 EC F19 Major Content Sections of a **Quantitative** Research Report and Related Critiquing Guidelines

#### Name of student/students submitting critique:

#### Title of critique article:

Textbook: LoBiondo-Wood, G., Haber, J., Cameron, C. & Singh, M.D. (2018). *Nursing research in Canada: Methods, critical appraisal, and utilization* (4<sup>th</sup> Canadian ed.). Toronto, ON: Elsevier Canada. (page 435 Box 19.1)

#### **Problem Statement and Purpose (Chp 4)**

1. What is the problem explored in, or the purpose of, the research study?
2. Does the statement about the problem or purpose express a relationship between two or more variables (e.g. between an independent variable and a dependent variable)? If so, what is the relationship? Is it testable?
3. Does the statement about the problem or purpose specify the nature of the population being studied? What is it?
4. What significance of the problem –if any- has the investigator identified?

#### **Review of the Literature and Theoretical Framework (Chp 2, 5)**

5. What concepts are included in the review? Of particular importance, note which concepts are the independent and dependent variables and how they are conceptually defined.
6. Does the literature review make the relationships among the variables explicit or place the variables within a theoretical or conceptual framework? What are the relationships?
7. What gaps or conflicts in knowledge of the problem are identified? How is this study intended to fill those gaps or resolve those conflicts?
8. Are the references cited by the author mostly primary or secondary sources? Give an example of each.
9. What are the operational definitions of the independent and dependent variables? Do they reflect the conceptual definitions?

#### **Hypothesis or Research Question (Chp 4)**

10. What hypotheses or research questions are stated in the study? Are they appropriately stated?
11. If research questions are stated, are they used in addition to hypotheses or to guide an exploratory study?
12. What are the independent and dependent variables in the statement of each hypothesis or research question?
13. If hypotheses are stated, is the form of the statement statistical (null) or research?
14. What is the direction of the relationship in each hypothesis, if indicated?
15. Are the hypotheses testable?

#### **Sample ( Chp 12)**

16. How was the sample selected?
17. What type of sampling method is used in the study? Is it appropriate for the design?
18. Does the sample reflect the population as identified in the problem or purpose statement?
19. Is the sample size appropriate? How is it substantiated?
20. To what population may the findings be generalized? What are the limitations?

**Research Design (Chp 10, 11)**

21. What type of design is used in the study?
22. What is the rationale for the design classification?
23. Does the choice of design seem logical for the proposed research problem, theoretical framework, literature review, and hypothesis?

**Internal Validity (Chp 9)**

24. Discuss each threat to the internal validity of the study.
25. Does the design have controls at an acceptable level for the threats to internal validity?

**External Validity (Chp 9)**

26. What are the limits to generalizability in terms of external validity?

**Research Approach (Chp 7, 11)**

27. Does the research approach fit with the purpose of the study?
28. Is a mixed-methods approach, if used, appropriate for the study?

**Methods (Chp 13)**

29. What data collection methods are used in the study?
30. Are the data collection procedures similar for all participants?

**Legal/Ethical Issues (Chp 6)**

31. Have the right of participants been protected? How?
32. What indications are given that informed consent of the participants was ensured?

**Instruments (Chp 13)**

33. Physiological measurement
  - 33a. Is a rationale given for why a particular instrument or method was selected? If so, what is it?
  - 33b. What provision is made for maintaining the accuracy of the instrument and its use, if any?
34. Observational method
  - 34a. Who did the observing?
  - 34b. How were the observers trained to minimize bias?
  - 34c. Did the observers have an observational guide?
  - 34d. Were the observers required to make inferences about what they saw?
  - 34e. Is there any reason to believe that the presence of the observers affected the behaviour of the participants?
35. Interviews
  - 35a. Who were the interviewers? How were they trained to minimize bias?
  - 35b. Is there evidence of any interviewer bias? If so, what is it?
36. Questionnaires
  - 36a. What is the type or format of the questionnaires (e.g. Likert-type, open-ended)? Are they consistent with the conceptual definitions?
37. Available data and records
  - 37a. Are the records that were used appropriate to the problem studied?
  - 37b. Were the data used to describe the sample or for hypothesis testing?

**Reliability and Validity (Chp 14)**

38. What type of reliability is reported for each instrument?
39. What level of reliability is reported? Is it acceptable?
40. What type of validity is reported for each instrument?
41. Does the validity of each instrument seem adequate? Why?

**Analysis of the Data (Chp 16)**

42. What level of measurement is used to measure each of the major variables?

43. What descriptive or inferential statistics are reported?
44. Were these descriptive or inferential statistics appropriate for the level of measurement for each variable?
45. Are the inferential statistics use appropriate for the intent of the hypotheses?
46. Does the author report the level of significance set for the study? If so, what is it?
47. If tables or figures are used, do they meet the following standards?
  - 47a. They supplement and economize the text.
  - 47b. They have precise titles and headings.
  - 47c. They do not repeat the text.

**Conclusions, Implications, and Recommendations**

48. If hypothesis testing was done, were the hypotheses supported or not supported?
49. Are the results, interpreted in the context of the problem or purpose, hypothesis (see chp 19), and theoretical framework or literature reviewed?
50. What does the investigator identify as possible limitations or problems in the study in relation to the design, methods, and sample?
51. What relevance for nursing practice does the investigator identify, if any?
52. What generalizations are made?
53. Are the generalizations within the scope of the findings or beyond the scope of the findings?
54. What recommendations for future research are stated or implied?

**Application and Utilization (Chp 20)**

55. Does the study appear to be valid? In other words, do its strengths for nursing practice outweigh its weaknesses?
56. Do other studies have similar findings?
57. What risks or benefits are involved for patients if the research findings are used in practice?
58. Is direct application of the research findings feasible in terms of time, effort, money, and legal/ethical risk?
59. How and under what circumstances are the findings applicable to nursing practice?
60. Should these results be applied to nursing practice?
61. Would it be possible to replicate this study in another clinical practice setting?

