

# Dalhousie Library Instruction for NURS2300: L. McNiff

## Lesson Plan

### Goals

Undergraduate nursing students in their second or third year will be able to identify MeSH terms, create PICO questions, and construct PubMed queries to answer their evidence-based practice questions.

### Learning Outcomes / Understandings (“Identify desired results” – Backwards Design Stage 1)

#### Outcome 1:

Students will be able to identify MeSH terms in Pubmed / MEDLINE

#### Outcome 2:

Students will be able to create a PICO question for an evidence-based practice problem

#### Outcome 3:

Students will construct a PubMed search using MeSH and PICO

### Evidence of learning (“Determine acceptable evidence” – Backwards design Stage 2)

I will be able to determine if the students are learning the outcomes by listening to classroom discussions and completing the worksheet. Acceptable discussion comments include finding appropriate MeSH terms and talking through the PICO process leading them to produce appropriate answers.

### Assumptions

- Second or Third year undergraduate nursing students taking an Evidence Based Practice Research Methods Course
- The students know how to use a computer
- The students know what Evidence Based Practice is because they already had that session in their course by their professor
- MLIS students should watch this video before class:  
<https://www.youtube.com/watch?v=2pJvBNszxIU>

### Materials

What materials will be needed? (including technology)

- One laptop with wifi per two students
  - Access to PubMed
- Projector
- Instructor laptop with wifi

What needs to be prepared in advance?

Nursing students do not need to prepare anything. For this exercise, MLIS students should watch the following video: <https://www.youtube.com/watch?v=2pJvBNszxIU>

## Learning Activities and Lesson Description

("Plan learning experiences and instruction" – Backwards Design Stage 3)

The purpose of this lesson is to teach nursing students how to identify MeSH terms and to create a PICO search strategy for clinical questions. It also teaches them how to apply MeSH and PICO to search in Pubmed. There are three hands on activities for the students, identifying MeSH terms, generating PICO statements, and generating a search strategy in Pubmed.

## Lesson Procedure

Activity	Time	Start Time	Time Left
<b>Introduction</b>	<b>8 minutes</b>		
Who I am - Introduce myself and provide my contact information	1 minute	0:00	35:00
What we are doing today - Show outline of today's topics and relate them to the assignment	2 minutes	1:00	34:00
Reminder of Evidence Based Practice - They already learned this in class, so ask the students if they can explain evidence-based practice - Show the slide and quickly review the definition of Evidence Based Practice	5 minutes	3:00	32:00
<b>MeSH</b>	<b>12 minutes</b>		
Introduction to MeSH Terms - Ask the students if anyone knows what a MeSH term is - Show the definition	2 minutes	8:00	27:00
Demo a MeSH term - Show the audience how to get to pubmed from dal.ca and to the MeSH term search - Ask students for a medical term for demo, if none provided use bladder infection - Perform the MeSH term search	2 minutes	10:00	25:00

<p>Prepare for group activity</p> <ul style="list-style-type: none"> <li>- Ask students to pair up, one laptop is needed per pair, one group of three if necessary</li> <li>- Hand out activity sheet</li> <li>- Explain exercise: Produce three medical terms and find their MeSH term</li> </ul>	2 minutes	12:00	23:00
<p>Group Activity</p> <ul style="list-style-type: none"> <li>- Walk around class observing and seeing if anyone needs help</li> </ul>	5 minutes	14:00	21:00
<p>Followup</p> <ul style="list-style-type: none"> <li>- Ask audience how they felt about the activity, any questions</li> </ul>	1 minute	19:00	16:00
<b>PICO</b>	<b>15 minutes</b>		
<p>Introduction to PICO and explain PICO</p> <ul style="list-style-type: none"> <li>- Ask students if they know what PICO is</li> <li>- Show PICO slide</li> <li>- explain PICO</li> </ul>	4 minutes	20:00	15:00
<p>Demo a PICO scenario</p> <p>CASE: Hogarth, a 26 year old botanist, has been diagnosed with depression. Reluctant to take prescribed medication he prefers to try alternative medicines which he feels are better for the body and work just as well. You feel that his disorder would improve more effectively with an SSRI, but he feels strongly that St. John's Wort will be equally as effective.</p> <p>P: adult male with depression</p> <p>I: SSRI</p> <p>C: St. John's Wort</p> <p>O: reduce depressive symptoms</p> <p>Answerable question: In adult males with depression, are SSRI's more effective than St John's Wort in</p> <p><a href="https://sites.google.com/site/ebmlibrarian/teaching-tools/scenarios">https://sites.google.com/site/ebmlibrarian/teaching-tools/scenarios</a></p>	2 minutes	24:00	11:00
<p>Demo a second scenario, but ask the audience to respond</p> <p>CASE: Angela is an otherwise healthy 50 year old woman with early osteoarthritis in her knees, hips, and feet. She has been taking ibuprofen with some relief, but is reluctant to be on longterm</p>	2 minutes	26:00	9:00

<p>medication. She asks you about possibly trying acupuncture for her arthritis; what is your recommendation?</p> <p>P - middle aged woman with osteoarthritis</p> <p>I – acupuncture</p> <p>C – ibuprofen</p> <p>O – pain relief</p> <p><a href="https://sites.google.com/site/ebmlibrarian/teaching-tools/scenarios">https://sites.google.com/site/ebmlibrarian/teaching-tools/scenarios</a></p>			
<p>Group Activity</p> <ul style="list-style-type: none"> <li>- In the same pairs, work on the next exercise with 2 scenarios that should be changed into PICO questions</li> <li>- Walk around the room observing the work and being available for questions</li> </ul>	5 minutes	28:00	7:00
<p>Follow up</p> <ul style="list-style-type: none"> <li>- Ask for one group of students to share, ask for questions</li> </ul>	2 minutes	33:00	2:00
<b>Pubmed</b>	<b>15 minutes</b>		
<p>Demonstrate how to turn a PICO Question into a pubmed search</p> <ul style="list-style-type: none"> <li>- Use my first demo in PICO as the PICO example</li> <li>- Demonstrate turning it into a pubmed search</li> </ul>	4 minutes	35:00	
<p>Explain Group activity</p> <ul style="list-style-type: none"> <li>- Same pairs, turn both PICO questions from previous exercise into a pubmed search</li> </ul>	1 minute	39:00	
<p>Group Activity</p> <ul style="list-style-type: none"> <li>- Walk around the room observing the work and being available for questions</li> </ul>	7 minutes	40:00	
<p>Follow up</p> <ul style="list-style-type: none"> <li>- Ask students for their feedback on exercise, ask if they have any questions</li> </ul>	2 minutes	47:00	
<p>Closure</p>	2 minutes	49:00	
<p>Information on how to get more help</p> <ul style="list-style-type: none"> <li>- Show slide with additional places to get info including libguides</li> </ul>	2 minutes	51:00	
<p>Survey</p> <ul style="list-style-type: none"> <li>- Hand out survey</li> </ul>	2 minutes	53:00	

Note: Green = taught for assignment purposes; Red = not taught for assignment purposes

## Assessment Techniques

A worksheet will be handed out to the students. The students will be asked to work in pairs (one laptop is required per pair) to complete the worksheet. The worksheet will ask the students to identify MeSH Terms, create a problem question using PICO, and create a PubMed search string.

## Evaluation Tools

A handout with two questions:

- What was the most important thing you learned in this session?
- Do you have any suggestions for improving this session?

The purpose of this short evaluation, is to provide a quick way for students to evaluate the course. It takes very little time, and it also helps assess what the students learned from the session.