Outcome: **Skillfully find and retrieve information related to their research. (searching for research)**

- Students will approach searching for information as a multi-step process.
- Students will understand the difference between searching for information on the free web vs. the library.
- Students will develop keywords from their topic question in order to successfully search library resources on their chosen topics.
- Students will perform keyword searching to search for information applying Evidence Based criteria. (Show examples using the different databases and explain the differences) OneSearch vs single database searching
- Students will distinguish between and perform different types of searches. **Keyword, MESH, subject, etc.**
- Students will understand the role the library plays in becoming Evidence Based Practitioners.

Outcome: **Think critically in order to evaluate the credibility of sources of information into their research project. (Information Literacy)**

- Students will differentiate between multiple source types and synthesize that information into their research.
- Students will use sources as evidential support for claims they make in their research.

**KEY TERMS:**

**Peer-Reviewed or Scholarly Journal Articles**

Original Research or Empirical Research or Evidence Based Practice-

Medical Subject Headings (MeSH) (used in CINAHL, Cochrane, and Pubmed databases) is a list of medical based keywords that describe articles in databases. Terms are selected to cover both the central aspects of an article (major headings) and other significant information discussed (minor headings). By using terms from the MeSH thesaurus, all articles on a given topic can be found regardless of the terminology used by the authors.

Use MeSH to:

- Identify appropriate terms
- Confirm definitions
- Search by a subject
- Build a search strategy
- Apply subheadings
- Focus search results
- Limit or expand retrieval

**Meta-analysis:** qualitative and quantitative study data from several selected studies to develop a single conclusion that has greater statistical power. This conclusion is statistically stronger than the analysis of any single study, due to increased numbers of subjects, greater diversity among subjects, or accumulated effects and results.

**Systematic Review:** A document often written by a panel that provides a comprehensive review of all relevant studies on a particular clinical or health-related topic/question.

**Full-text**

**Interlibrary loan services**
OUTLINE:
1. Meriam Library OneSearch Station
2. Nursing Research Guide
3. Search Strategy Development & Application

   a. Topic in a sentence
   b. Identify key concepts
   c. Use AND/OR, Synonymous Terms, Phrase Searching and Truncation
   d. Identify appropriate database
   e. Search
   f. Review Results
   g. Modify Search
   h. Practice helps! Give yourself plenty of time!!!
   i. Help menus are your best friends!!

Databases

1. CINAHL/PubMed -- Unfiltered = primary literature, new research
   - Click on Research Article in the Limit Your Results Section; or limit with Publication Type, such as Clinical Trial, Meta-Analysis, Systematic Review or Research; or use the Clinical Queries limit; or the Evidence-Based Practice limit.
   - The indexers use a set list of terms for these subject headings from the National Library of Medicine (US) to ensure that the articles are described consistently (MeSH).
   - The most effective way to search the CINAHL database is to map your search term to these subject headings.
   - Searching: Subject Headings, Limits
   - Link (Check for Availability)/ILS (sign-up)
   - Record/Citation Options: Notes / Export / Cite / Permalink (Save)
   - Search History / Browse with Quick View / Refine Results & More
     - Expand on results: Find Similar, Author, Cited References, Times Cited
     - Pin must log in

2. Cochrane
   - Cochrane: The gold standard for Evidence based practice = filtered resource—literature reviews that evaluate to provide an answer to a clinical question. A document written by a panel that provides a comprehensive review of all relevant studies on a particular clinical or health-related topic/question
   - Terminology relevant to the Cochrane Library:
     - Protocol - plan or set of steps to be followed in preparation of a study
     - Systematic Reviews - overviews in clinical medicine which were originally summaries of relevant randomized controlled trials (RCTs),
     - Meta-Analyses - systematic reviews which employ a quantitative method to summarize results.
Meta-analysis: qualitative and quantitative study data from several selected studies to develop a single conclusion that has greater statistical power. This conclusion is statistically stronger than the analysis of any single study, due to increased numbers of subjects, greater diversity among subjects, or accumulated effects and results.

Systematic Review: A document often written by a panel that provides a comprehensive review of all relevant studies on a particular clinical or health-related topic/question.

3. Pubmed

- **Hint**: you can limit with Type of Article, such as Randomized Controlled Trial, Clinical Trial, or Meta-Analysis, MESH searching (*Medical Subject Headings*). Use MeSH to identify search terms and to focus a search. By using terms from the MeSH thesaurus, all articles on a given topic can be found regardless of the terminology used by the authors. You can limit your searches to nursing journals listed under *Topic-Specific Queries*.

**Searching Tips:**

When looking for books or articles try to narrow down your subject. For Example:

Search the terms **hand washing AND infections**
The results returned will have the all of the terms hand washing and infections somewhere in the record.

Look for the hyperlinked subject terms to lead you to more items with this same subject; for example *Professional Compliance* and *handwashing* are subject terms. (Controlled vocabulary supplied by database, MeSH)
The result should be more exact items on your topic, with less searching.

Additionally, combine terms with **AND**, **OR**, **NOT** example:

- **Hand washing AND infection control** --> Narrow Results (Reduces the number of search results by requiring more than one term to appear in the same article)
- **handwashing OR hand washing** --> Broad Results (Expands the number of search results by expanding the possible matches to include either one or the other term)
- **handwashing NOT soap** --> Narrow Results (Reduces search results to omit references to articles with certain words that have nothing to do with your topic)

**Putting it all together...**

Put it all together to make a sophisticated search: (**handwashing OR hand washing**) AND (**infection control**)

**Phrase Searching**

When multiple words are placed in a single search box, a database search engine will do one of two things. By default, the search engine will either:

1. Search for those words as a phrase. Meaning it will search for them side-by-side, next to each other and in that exact order ONLY

   Or

2. Automatically place an implied **Boolean 'AND'** between the words and search for each word separately. It will retrieve only articles that contain both words, including those that are next to each other ... but in addition it will also retrieve articles where the words are found separately in different places within the article. By default, most of the library databases will search for multiple words as a phrase. On the other hand, Google and most online search engines will insert the implied 'AND' between each word.

If you are unsure of the default of the database you are searching, use double quotation marks for "phrase searching" and place a Boolean 'AND' between words if you wish to search for them separately, “hand washing” AND “infection control”.

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