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KARNATAKA RADIOLOGY EDUCATION PROGRAM

CLINICAL RESEARCH – BRIDGING IMAGING & INNOVATION

SESSION – 7 – REVIEW OF LITERATURE - CHALLENGES, TIPS, & MISTAKES TO BE AVOIDED



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REVIEW OF LITERATURE - SEARCH AND EVALUATION CHALLENGES

✓ **Finding Relevant Literature:**

- ✓ Difficulty in accessing paywalled articles or studies
- ✓ Navigating through a vast amount of information to find relevant studies

✓ **Defining Scope and Focus:**

- ✓ Struggling to narrow down the topic to a manageable scope
- ✓ Ensuring the review remains focused on the research question

✓ **Evaluating Quality of Studies:**

- ✓ Assessing the credibility and reliability of sources
- ✓ Identifying biases and methodological flaws in existing research

✓ **Managing Time:**

- ✓ Balancing literature review with other research activities
- ✓ Allocating sufficient time for thorough reading and analysis



REVIEW OF LITERATURE - WRITING AND ORGANIZATIONAL CHALLENGES

✓ **Organizing Information:**

- ✓ Keeping track of numerous references and citations
- ✓ Systematically organizing findings to create a coherent review

✓ **Synthesizing Information:**

- ✓ Combining information from multiple sources into a cohesive narrative
- ✓ Identifying common themes, gaps, and conflicting findings

✓ **Avoiding Plagiarism:**

- ✓ Properly paraphrasing and citing sources to avoid plagiarism.
- ✓ Ensuring originality and academic integrity.

✓ **Writing Clearly:**

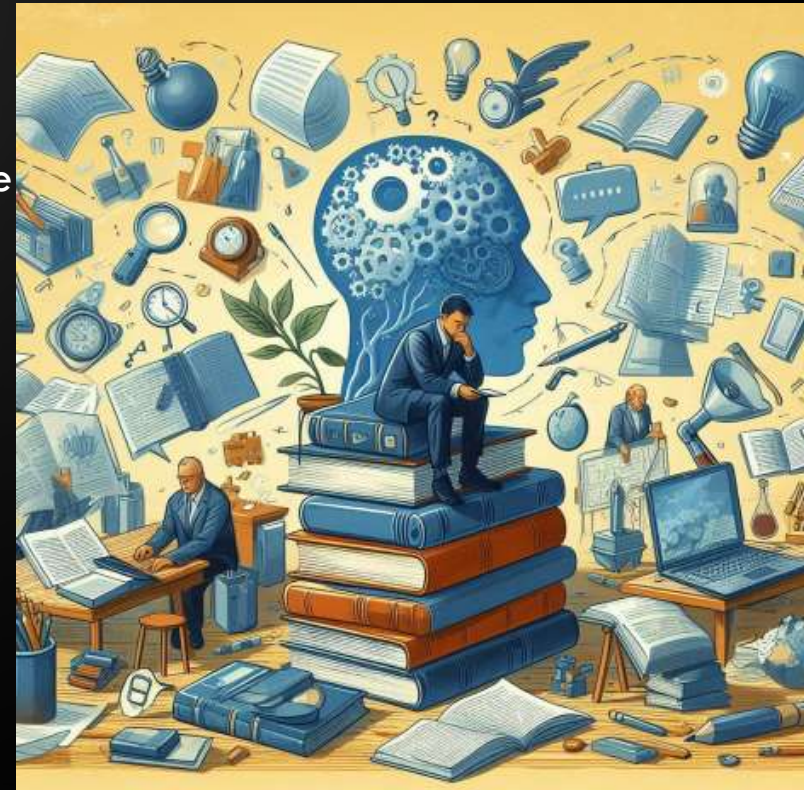
- ✓ Presenting complex information in a clear and concise manner.
- ✓ Maintaining a logical flow and structure in the review.

✓ **Handling Feedback:**

- ✓ Addressing critical feedback from peer reviewers and editors.
- ✓ Revising and improving the review based on feedback.

✓ **Staying Updated:**

- ✓ Keeping up with new research and developments in the field.
- ✓ Continuously updating the literature review as new studies emerge



TIPS FOR REVIEW OF LITERATURE - PLANNING AND SEARCHING

✓ **Define Your Research Question:**

- ✓ Clearly state your research question or hypothesis. This will guide your search and help you stay focused

✓ **Plan Your Search Strategy:**

- ✓ Identify key databases relevant to your field
- ✓ Use a variety of keywords and Boolean operators to expand or narrow your search

✓ **Set Inclusion and Exclusion Criteria:**

- ✓ Determine what types of studies will be included and which ones will be excluded
- ✓ Be clear about the criteria to maintain consistency

✓ **Conduct a Comprehensive Search:**

- ✓ Search multiple databases and sources to ensure comprehensive coverage
- ✓ Document your search strategy and results for transparency



EXAMPLE/ TASK FOR PLANNING AND SEARCHING

Tip	Description	Example
Define Your Research Question	Clearly state your research question or hypothesis to guide your search and stay focused.	Example: "What are the effects of MRI contrast agents on kidney function in patients with chronic kidney disease?"
Plan Your Search Strategy	Identify key databases, use a variety of keywords, and apply Boolean operators to expand or narrow your search.	Example: Use databases like PubMed and Google Scholar with keywords such as "MRI contrast agents", "kidney function", "chronic kidney disease", and Boolean operators like AND, OR, NOT.
Set Inclusion and Exclusion Criteria	Determine what types of studies will be included and excluded, and maintain consistency.	Example: Include studies from the last 10 years that focus on human subjects, exclude case reports and animal studies.
Conduct a Comprehensive Search	Search multiple databases and sources for comprehensive coverage and document your search strategy.	Example: Search PubMed, Embase, and Scopus, and document search terms, date of search, and number of results found.

TIPS FOR REVIEW OF LITERATURE – MANAGING & EVALUATING

✓ **Manage References Efficiently:**

- ✓ Use reference management tools like EndNote, Mendeley, or Zotero to organize and store citations.
- ✓ Consistently track and save sources for easy retrieval.

✓ **Evaluate the Quality of Studies:**

- ✓ Critically appraise the methodology and findings of each study.
- ✓ Use established criteria and tools for quality assessment.

✓ **Summarize and Synthesize Information:**

- ✓ Identify common themes, trends, and gaps in the literature.
- ✓ Summarize findings and group related studies together.



EXAMPLE / TASK FOR MANAGING & EVALUATING

Tip	Description	Example
Manage References Efficiently	Use reference management tools like EndNote, Mendeley, or Zotero to organize and store citations.	Example: Use Mendeley to import and categorize articles, creating folders for different themes or sections.
Evaluate the Quality of Studies	Critically appraise methodology and findings using established criteria and tools.	Example: Use the CASP (Critical Appraisal Skills Programme) checklists to evaluate study quality, considering factors like study design, sample size, and potential biases.
Summarize and Synthesize Information	Identify common themes, trends, and gaps, and combine information into a cohesive narrative.	Example: Summarize findings under themes such as "Adverse Effects of MRI Contrast Agents" and "Renal Function Outcomes," and identify gaps like "Lack of Long-term Follow-up Studies."