**Phase 1 b) Literature Review**

It takes the longest time in research. It is the systematic review of existing knowledge and critical appraisal/review and summarizing them to see what is done and what is not done. We can save time by seeing other’s experiences and also ensure no duplication. We can also get information from experts in the field.

 **Why Literature review**

✔ To know the novelty. (What has been done and what needs to be done)

✔ To know the field and the people

✔ To get methodological insights e.g tools and methods used.

 ✔ To avoid plaglarism (It comes in reporting- giving credit to information is avoiding plaglarism. Or just paraphrase in your own words).

✔ To Improve timeline and technique

 **When Literature review**

 It is done in all phases. Of course the magnitude will be different.

Phase 1- 80% - To ensure novelty.

Phase 2- 5% - To handle practical challenges and contemporary problems. Midway correction.

Phase 3- 15%- To compare our research with previous one’s.

 Since new developments are coming at moment’s notice therefore we should do literature review throughout all the 3 phases.

 **How Literature review**

We need to search the relevant information sources for our information i.e specific database with discipline. E.g Medical: Pubmed , Sci-hub.cc (can search by PMID, DOI or urll) Others Google scholar, Shodhganga (UGC), NDL (Open source), proquest, Libraryofyoga.com

 **How Literature review**

It defines the process of literature review

1) Define what you want to search- Objective of literature review. Find diabetic population among the adult population.

2) Look for secondary sources of information- Source is origin from where you get the information. For secondary sources, authenticity cannot be guaranteed. They are not first hand e.g. books, newspapers, wikipedia, google. But they are good to start with.

3) Primary sources- They are more original and authentic than secondary sources but also more technical. It can be understood by experts only. We can use primary sources to cite the information and secondary sources to find. Scientific peer reviewed journals are 99% authentic as they go for peer review where its either accepted or raised with objections. Peer reviewed journals are published only after validating the correctness. Its very rigorous. 4) Choose appropriate database- E.g. Online or offline

5) Key words selection- People should know how I got the information. Important thing in research is reproducability.

 6) Collect- Read all information but if the dataure. If its large then refine or use specific keywords. See the current developments and updated information. Focus on recent literature. If historical review then we can go back. If applied research is there e.g new disease then go four recent literature. We should maximum go for 3 years, 5 years and not more than 10 years of literature. Exception is classical papers which can be quoted. Outdated information is not useful.

 7) Organize- Organize your data as per various classifications or levels.

8) Critically read, appraise and summarize- We read and summarize the 10 pages information into 2 to 3 pages.

 **Types of Literature**

 1) Original Articles

 2) Single case study

3) Review Articles- It is of 3 types

a) Narrative review- It is by experts in the field. Bias is possible even though we respect the experience of the teacher.

b) Systematic review- You choose the filter for articles. There is a QC of data.