Reading: finding suitable sources and developing critical approach, Key points and note making.

Dr. Firas Albaaj
B.D.S, M.SC, PhD

How many scientific articles do you read on a regular basis?

What are the topics you keep up with?

When you need critically analyze available information about a particular topic?

Aims

- **Developing skills in examining and selecting the most appropriate text for academic work; • Developing skills in locating relevant subject in the library and electronic resources; • Developing skills in effective reading of academic texts;**
- **Developing skills in critical appraisal of academic text.**

Academic texts

The main features of academic texts are formal vocabulary, use of references, impersonal style, and long, complex sentences.

To find headings for your topic:

Keywords	vs.	Subjects
•natural language words describing your topic - good to start with		•pre-defined "controlled vocabulary" words used to describe the content of each item (book, journal article) in a database
•more flexible to search by		•less flexible to search by
•database looks for keywords anywhere in the record - not necessarily connected together		•database looks for subjects only in the subject heading or descriptor field, where the most relevant words appear
•may yield too many or too few results		•if too many results - also uses subheadings to focus on one aspect of the broader subject
•may yield many irrelevant results		•results usually very relevant to the topic

Reading list: required books, papers, and theses to be read as part of the academic course.

Critical appraisal: is the process of carefully and systematically examining research to judge its trustworthiness, value and relevance in a particular context. (Burls 2009).

Research synthesis:
The process through which two or more research studies are assessed with the objective of summarizing the evidence relating to a particular question (Cooper et al. 2009).

Techniques of Reading (Mikulecky and Jeffries 2004)

The theory proposed by Mikulecky and Jeffries (2004) regarding the reading techniques; previewing and predicting, scanning, skimming, summarizing and making inference.

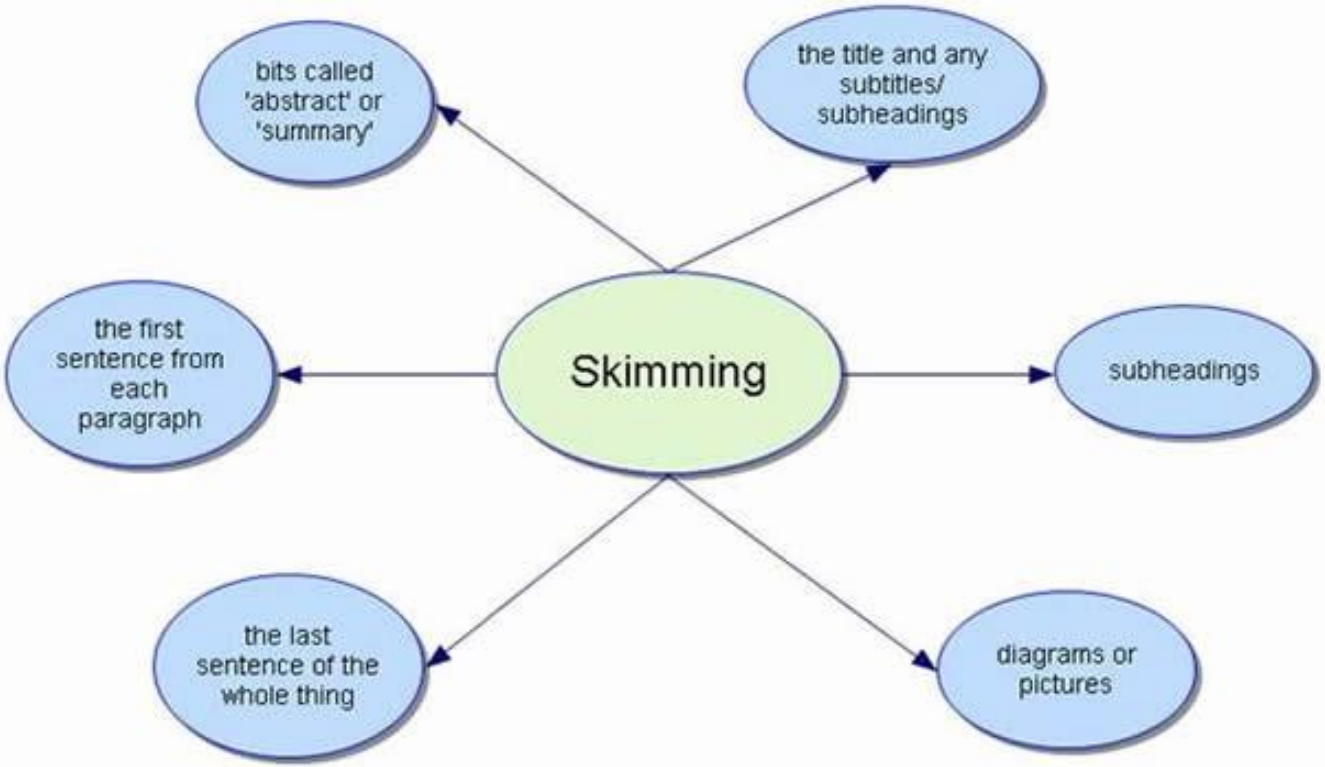
Skimming and scanning are two specific speed-reading techniques, which enable you to cover a vast amount of material very rapidly.

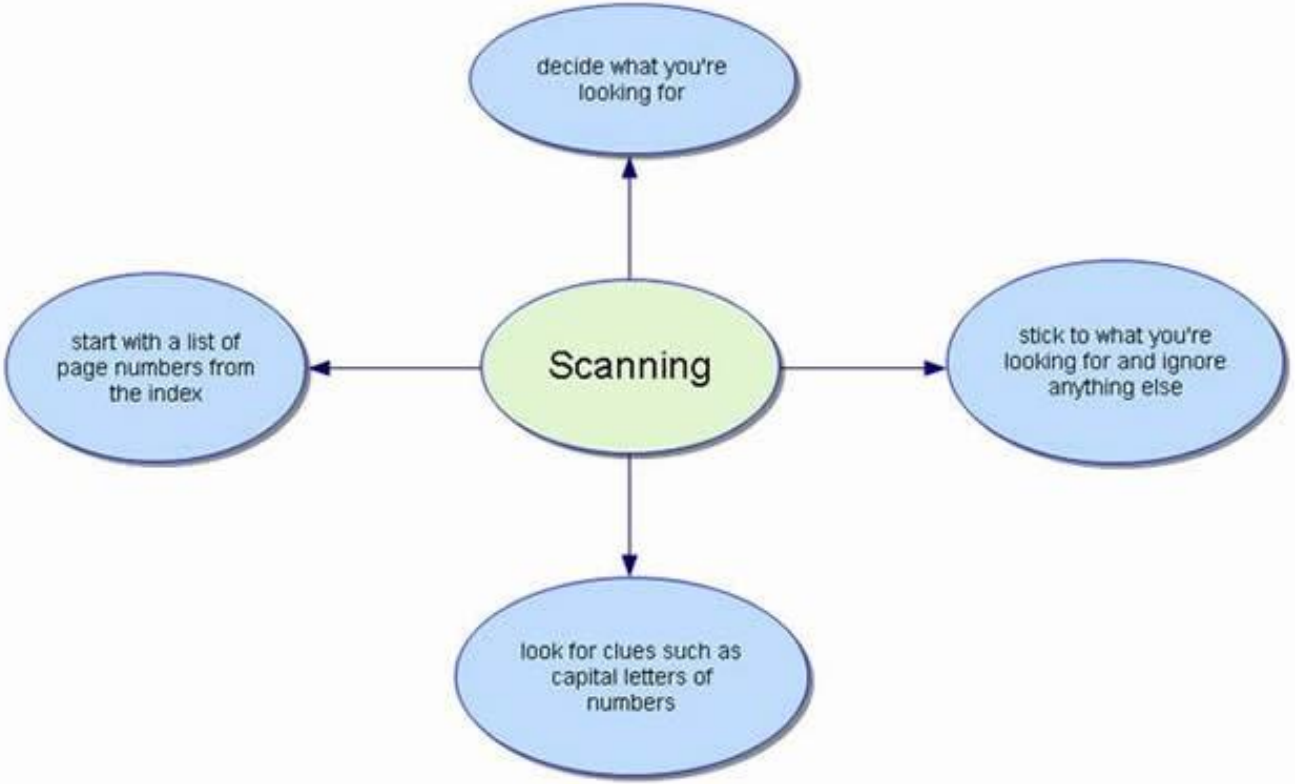
Skimming

- Skimming is refers to looking only for the general or main ideas;
- It can allow you to familiarize yourself with a text.

Scanning

- Scanning means reading slowly and carefully to pick out specific information from a text;
- It allows to find details and other information in a hurry.


Skimming
bits called 'abstract' or 'summary'
the title and any subtitles/ subheadings
the first sentence from each paragraph
subheadings
the last sentence of the whole thing
diagrams or pictures


decide what you're looking for
start with a list of page numbers from the index
Scanning
stick to what you're looking for and ignore anything else
look for clues such as capital letters of numbers

Predicting

- Guessing what is to come next. It helps to prepare your mind to absorb, interpret, check, and confirm information;
- It can allow connections between our prior knowledge and the text.

Making Inference

- Reading between the lines;
- It helps to create new meaning or draw a conclusion.

Summarizing

- Retelling the important parts of a passage in a much shorter form;
- It is a valuable practice for students in developing reading and writing skills, also it is related to paraphrasing.

Critical appraisal of different study designs

To critically appraise a journal article, you would have to start by assessing the research methods used in the study. This is done using checklists which are specific to the study design. The following checklists are commonly used:

- Critical Appraisal Skills Programme (CASP) http://www.casp-uk.net/checklists;

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- Scottish Intercollegiate Guidelines Network (SIGN) http://www.sign.ac.uk/methodology/checklists.html;

- Centre for Evidence-Based Mental Health(CEBMH) http://cebmh.warne.ox.ac.uk/cebmh/education_critical_appraisal.htm.

FEATURES OF A WELL PLANNED & EXECUTED SCIENTIFIC STUDY

- Good research question, specific purpose of the study & hypothesis.
- Appropriate measurements to test the hypothesis.
- Subjects are representative of the population under investigation.
- Inclusion of appropriate controls.
- Sufficient study size and power.
- Appropriate randomisation of treatment allocation.

- Controlled for confounding.
- “Blind” experiments to eliminate observation bias.
- Use of correct statistical method for analysis.


Thank you