Course 4. Research Topic Analysis

Outline

1. Understand and delimit the subject
2. Questioning the subject (the 3QCOP method)
3. Organize your research
4. Practical case

Introduction

Every good research project **has a well-defined topic**. Selecting and developing a topic is an ongoing process by which you define and refine your ideas. You can then focus your research strategies to find relevant and appropriate information. Before you begin the research process, be sure that you understand the assignment, the purpose, and the requirements. Plan for sufficient research, thinking, and writing time for the project. So, spend time ***analyzing*** the question and ***identifying*** the components of your ***task***. This will help guide the research process and help you to research more ***efficiently*** and ***effectively***.

Topic analysis is the act of ***breaking down*** an ***assignment question*** or ***research topic*** so that you ***understand it in detail***.

The aim is to have a ***clear idea*** of what you are meant to write *before* you start your research.

Analysis goes beyond ***describing*** or **summarizing** the topic or issue. You must engage with 'how' and 'why', and show you ***understand*** the ***underlying concepts*** or ***processes***.

1. Understand and delimit the subject

It is necessary to **understand**, **delimit** and **question** the research topic to **avoid misinterpretations, off - topic and omissions**, to **choose the questions** has to treat and to be in measure to pose a **problematic**.

To understand and delimit the subject , it must :

- leave of an initial question ;
- identify the concepts of the question;

- write a documentary question with the appropriate vocabulary (descriptors and keywords) and operators adequate ;

1.1. Identify the research topic

How to identify the subject ?

- **read** carefully the subject and **identify the important words ,**
- **look for the meaning of words** that seem very important , little clear , complex, polysemic in using dictionaries **for example** .
- seek to have a **view For an overview** of the subject, consult **encyclopedias , for example**.

The steps are:

1. Check meanings of words/re-write topic or quote
2. Circle instructional words
3. Underline the key words
4. Bracket the limiting words
5. Divide the topic into sections

Use the QQQOCP (3QOCP) method:

This is a mnemonic for retaining a set of simple questions that will be used to identify, clarify and expand on a topic:

2. **Who?** = Who are the actors, the people involved?
3. **What?** = What aspects are of interest for my work?
4. **When?** = What is the period in question?
5. **Where?** = Is the subject limited to a specific geographical area?
6. **How?** = What approaches or points of view should be considered? (historical, sociological, economic, political, etc.).
7. **Why?** = What is the importance of the subject in the current context?

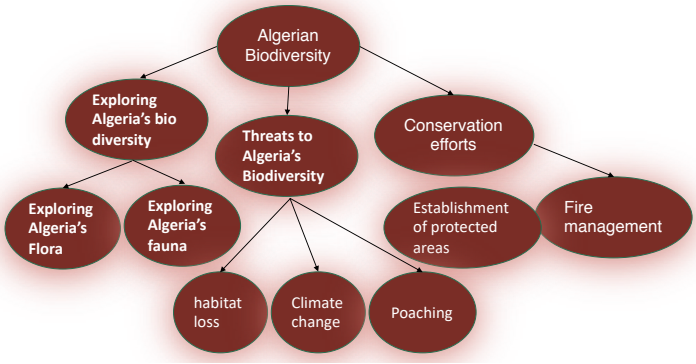
Question the subject (the 3QCOP method)

- indicate the problem : what exactly are we talking about ?
- refer to literature published : what we already knows ?
- present the hypothesis (es) : what will be verified ?
- Explain the terms important .
- Give a view overall topic .
- Delimit the subject in choosing some points to develop.
- Start at question the subject and specify the research

1.2. Delimiting a search question

Creating a mindmap over what you already know about the subject might help you to delimit what you want to find out more about. The way you define your topic will have an impact on how you build your search strategy.

Below is a mindmap over the subject area "Algerian Biodiversity" and written down what we have found through our first broad searches.



- **Figure 1.** Example of Mindmap

2 - Formulating the topic

A short sentence

The topic should be expressed in a short sentence, if possible in the form of a question and using meaningful terms. The search statement should be as specific as possible.

Key Concepts

Each term in the statement is important and will correspond to key concepts/words that are used to develop the research equations.

A selection of terms

It is advisable for each concept to search for one or more synonyms or associated terms and their translation into English (or other languages depending on your subject).

3. Organize the research

Organizing your research is a step that allows you to correctly respond to the **expectations of the recipient** of the work and save **time.**

Understand what **form of work is** required (type of work to be done: revise your course, prepare a presentation, prepare an internship report).

Depending on the form of the work requested, the time spent understanding the subject varies.

It takes ***a few minutes*** for a simple consultation in ***a dictionary*** to ***several hours*** of work over ***several days*** for the ***synthesis*** of different contents taken from different types of documents.
Then, we must situate the work in a particular **context** and especially a **discipline** ... for example the cellular biology course, the physics course...
Finally, we must plan the **material conditions**: schedule, locations, specific materials.
It is therefore necessary to find out about the **conditions of access** to places and documents and to assess the time required for this work.

4. Practical case

(seen in the course)