Course:03

The stages of carrying out a research

*** The approach**

At the start of a research, it is absolutely necessary to avoid sinking into “original chaos” or what we call headlong flight. We must therefore avoid three commonly encountered pitfalls, namely:

- “bookish or statistical gluttony”: this is the act of reading numerous articles or books without prior selection and without really knowing what we are looking for. This pitfall should be avoided; it most often leads to discouragement. We must by far prefer "the law of least effort", an essential rule of research work

- "the impasse of hypotheses": it is the fact of rushing into the collection of data before having formulated hypotheses. This is also to be avoided in the context of research, where on the contrary, one must always carefully ensure each stage of the research before moving on to a next stage

- "obscuring emphasis": one must avoid expressing oneself in a pompous and unintelligible manner regarding one's research project because one loses oneself and loses the meaning of one's research. Furthermore, a process is a way of progressing towards a goal. So whatever the research, the approach must always be presented in the same way, that is to say in three acts, which are:

- rupture (breaking with our preconceived ideas)

- construction (building explanatory propositions of the phenomenon studied, plan the research plan, the operations to be carried out and the consequences to be expected)

- and experimentation (putting the research to the test, confronting it with reality) These three acts are themselves broken down into seven stages in total,

which will constitute the architecture of the work. These steps are all essential and mutually dependent.

1st step: the starting question

The researcher must very quickly choose a first guideline that is as clear as possible, so that his work can begin without delay and be structured coherently. This starting point is only provisional, it is indeed likely to evolve subsequently since by definition, research is something that is sought. But formulating this initial question remains an obligatory step, which we must resign ourselves to accomplishing. This question must allow the researcher to express as precisely as possible what he or she is seeking to know, to elucidate, to better understand. However, translating a research project, in the form of an initial question, is only useful if this question meets three essential criteria which are:

- Qualities of clarity:

The question must be precise and not lead to confusion, each term must be clearly defined (carry out tests with those around you). Additionally, it should be as concise as possible.

- Qualities of feasibility:

The question must be realistic, from a personal, material and technical point of view.

- Qualities of relevance:

It must be a real question, without a presupposed answer and which has no moral connotation (we must not seek to judge but to understand well). In addition, it must approach the study of what exists or has existed and not that of what does not yet exist and finally, it must aim to better understand the phenomena studied.

2nd stage: exploration

The initial question constitutes the common thread of the research work and will therefore guide the exploratory stage.

The exploration is broken down into three parts, it includes:

- reading operations

- Exploratory interviews

- And complementary exploration methods.

The preparatory reading phase constitutes a "state of the art" and serves to learn about research already carried out on the working theme. For this reading phase, it involves very carefully selecting a small number of articles (or books) and organizing yourself to get maximum benefit from them. Thus, it is necessary to respect certain selection criteria, namely:

Ensuring the links of the chosen articles with the initial question, reasonably sizing the reading program, identifying elements of analysis and interpretation, and finally, choosing diversified approaches. In addition, it is strongly recommended to proceed in successive "bursts" in order to allow time for reflection and discussion between each reading phase. This method makes reading more profitable and allows you to better choose subsequent readings.

To know where to find these texts, it is necessary, **firstly,** to obtain information from teachers, researchers or specialists who can provide valuable assistance and **secondly**, to search for documents by exploiting the techniques of bibliographic research available in libraries (taking training with a librarian is recommended). For reading to be effective, it is also recommended to read methodically. For example, for each article read, it may involve establishing a reading grid which lists, on the one hand, the ideas contained in the text and on

the other hand, their structuring (progression of the text) and then writing a summary using this grid.

The readings must be accompanied by exploratory interviews which have the main objective of highlighting aspects of the phenomenon studied which the researcher would not spontaneously think of himself and thus completing the avenues of work highlighted by his readings. . Exploratory interviews can only fulfill this function if they are very non-directive (semi-directive interviews, method highlighted by Carl Rogers) because the objective is not to validate the researcher's preconceived ideas but to imagine them. news. During the interview, this involves: - asking as few questions as possible - intervening as openly as possible - refraining from getting involved yourself - ensuring that the interview takes place in an appropriate environment and context - record the interviews to be as attentive as possible. Three categories of people are likely to be of interest to the researcher: scientific specialists in the subject of study, privileged witnesses and the public directly concerned by the study. The purpose of the exploration stage is to verify that the initial question is still adapted to the meaning of the research, and if not, it involves exploiting the lessons learned from this exploratory work to reformulate the initial question. .

3rd step: The problem

It is now a matter of taking a step back from the information collected to clarify the main directions of the research and define a problem directly related to the initial question. The problem is the theoretical approach that we decide to adopt to deal with the problem posed by the initial question. The authors use two examples of the conception of a problem (suicide and teaching) to highlight the method to use, which can be done in two stages.

Firstly, it is a question of taking stock of possible problems and comparing them using the results of the exploration. Then, using benchmarks such as intelligibility schemes and modes of explanation, it is necessary to highlight the theoretical perspectives resulting from the approaches encountered. **Secondly,** it is about choosing and explaining your own problem with full knowledge of the facts. Thus, it is necessary to choose a theoretical framework that is adapted to the problem and controllable. Then, to explain the problem, it is necessary to redefine the object of study as precisely as possible, specifying the angle of attack and reformulating the initial question so that it becomes the central research question. At the same time, it is necessary to adapt the theoretical perspective according to the object of study in order to create a harmonized system. Thus, we see that formulation of the initial question, exploration and finally explanation of the problem are in close interaction. There are feedback loops between these stages which constitute the foundations of the development of the analysis model which will make the chosen research perspective operational.

4th step: construction of the analysis model

This step constitutes the hinge between the problem identified by the researcher and the elucidation work carried out. Once again the authors use two examples of analytical model construction (suicide and marginality) to illustrate the method to be used. These examples show that the analysis model is made up of concepts and hypotheses that fit together to form a coherent framework. Conceptualization constitutes an abstract construction which aims to account for reality. But it does not take into account all aspects of the reality concerned, it only notes those which are essential from the point of view of the researcher. It is thus a design-selection where the construction consists of identifying the concept, designating the dimensions which constitute it and finally specifying the indicators for measuring these dimensions.

We distinguish two types of concepts:

- Isolated operational concepts (IOC), constructed empirically thanks to direct observation (hypothetico-inductive method)

- Systemic concepts, constructed by abstract reasoning and generally characterized by a higher degree of break with prejudices (hypothetico-deductive method). This conceptualization is accompanied by the establishment of hypotheses.

A hypothesis is a provisional proposition that anticipates a relationship between two terms (concepts or phenomena). It therefore requires verification and will subsequently have to be compared with observational data. Thus, to be empirically verifiable, a hypothesis must be falsifiable, that is to say, it must, on the one hand, be testable indefinitely and on the other hand, accept contrary statements which are theoretically capable of being verified. Only compliance with this methodology makes it possible to implement the research dynamic which is characterized by a permanent questioning of prior knowledge.

5th step: observation

Observation is the comparison of the analysis model with observable data. During this phase, a lot of data is therefore gathered in order to be systematically used in a later step. This involves answering the following three questions:

- **Observe what? :** it involves gathering the relevant data, that is to say, those which are useful for verifying the hypotheses and which are determined by the indicators of the variables.

- **Observe on whom?** : It is a question of delimiting the field of analysis in geographical and social space and in time. Depending on the case, this will involve studying either the entire population considered, or only or only a representative or characteristic sample of this population.

- **Observe how? :** this involves determining the observation instruments and the way of collecting the data. This step takes place in three stages:

• design the observation instrument

• test it

• and collect the relevant data In addition, there are different methods of data collection:

- The questionnaire survey

- The interview - the direct observation

- The collection of existing data: secondary data and documentary data. The choice of method depends on the working hypotheses and the definition of the relevant data. But we must also take into account the training requirements necessary for the effective application of each method. 6th step: analysis of the information It is now a matter of noting whether the observed results correspond to the results expected by the hypotheses. Once again, the authors use an example (the religious phenomenon) to highlight the three operations of information analysis, which are as follows:

- describe the data and aggregate them: this involves clearly highlighting the characteristics of the distribution of the variable and then groups them into subcategories or expresses them by new relevant data.

- analyze the relationships between variables

- compare the observed results with the results theoretically expected by hypothesis and interpret the differences. There are mainly two methods of analyzing information: - statistical analysis of data

- content analysis which itself presents different variants:

• thematic analysis

• formal analysis

• structural analysis. In addition, “field research” constitutes an example of complementary implementation of different methods of observation and information analysis.

7th step: conclusions

The conclusion of a work is the part generally read first by a reader and which will decide whether or not to read the entire research work, so it must be written as carefully as possible. It must consist of three parts:

- a reminder of the broad outlines of the approach followed

- a detailed presentation of the knowledge contributions (new knowledge relating to the object of analysis and new theoretical knowledge) of which the work is at the origin

- new research perspectives that can be developed (openness).

An application of the approach

The authors have chosen to present an example which is an imperfect application of the method in order to highlight the “problem situations” which may arise. They are thus interested in the problem of student absenteeism. The initial question that guides their research work is formulated as follows: “What are the causes of absenteeism among first-year university students? ". They will then apply the different stages of the recommended approach to this initial question.