

# **The Problematic Between The Empirical Inductive Standpoint And The Deductive Hypothetical Standpoint**

**By**

**Oumelkheir Chetatha**

Research Center in Islamic Sciences and Civilization, Laghouat, Algeria.

**Bachir Benlahbib**

Laboratory That Conducts Research on Social Empowerment and Sustainable Development  
In The Desert Environment - University of Laghouat - Algeria

## **Abstract**

The problematic formulation stage is considered one of the most important stages of scientific research, as it is a pivotal stage between the cutting and foundation stages, as well as between the theoretical and field research sides. The scientific fact, in the words of "Gaston Bachelard": must be conquered, built, and examined. Accurate and important methodological steps must be taken into account in formulating the problematic, as it is necessary to take into account the past, present, and future of the phenomenon, by tracing the history of the phenomenon and describing it; In addition to what Raymond Quivy and Luc Van Campenhoudt called for in their books "Social Science Research Handbook" by addressing the seven stages of scientific research, where they presented the problematic formulation stage as a third stage, the construction of which requires necessity Examine as much as possible the previous literature, as well as conduct exploratory interviews to be able to form the conceptual construction of the research problematic in its general form, or what is known methodologically as the oppressive approach, meaning the transition from the general to the specific.

With this in mind, we ask:

What are the basic steps that must be taken into account when formulating the problematic, and how to formulate the sub-questions?

**Keywords:** problematic, formulation, steps, qualitative, quantitative, deduction, induction, questions.

### ***What is meant by problematic?***

The feeling of the problematic is the result of what happens to societies in terms of emergencies and disruptions of order, which may reach the degree of damage to the social order, and it appears in the form of contradictions that spread through the network of social relations, and may invade it and pervade all social, cultural, economic, political and civilized fields, provided that the degree of damage varies according to its factors and the extent of its effectiveness. ; Whereas, if the damage factor was partial, then the problematic was partial, but if the damage factor was totally, then the problematic was total. In this case of the total problematic, only total solutions are useful, perhaps the characteristic shared by the partial and total problematic situation is the appearance in a paradoxical situation, which carries the feeling of the problem. This feeling pushes or arouses in the researcher the desire to search for factors of contradiction, after which the will to resolve arises. However, the emergence of the desire for a solution quickly collides with the aspects of the problematic that are excluded from the solution and prevent its realization; Then the feeling of the problematic turns into firm assurance of the existence of the problem, which calls for the need to raise it as an objective issue present

in the depths of the network of social relations, that is why it was defined as the personal theoretical framework through which the disturbing and confusing research topic is presented for analysis and treatment in a focused editorial manner, expressing the existence of a specific problematic that has its significance and impact on society.<sup>1</sup>

The research problematic is expressed as problematic when the phenomenon requires a theoretical conceptual approach, which is determined through organized observation and cognitive processing, provided that this approach is the epistemological means adopted for the solution; Such research is widely spread in the social sciences, such as studying the relationship between an independent variable and its associated variables, so that this leads to an epistemological perception of the relationship between the two variables within the framework of a situation<sup>2</sup>.

However, the process of producing variables goes back to the first level of depth in scientific research, which is the exploratory level, where the variables did not exist in theory without their existence in reality, just as the latter cannot be directly identified, it requires careful observation to know and understand its dimensions and indicators, and this allows meeting reality to record its indicators, and trying to make them into homogeneous categories

- 
- 1- <sup>1</sup>Fodil Deliou, Research Foundations and Techniques in the Social Sciences, Constantine, Algeria, 1997, pp. 18-19.
  - 2- Larbi Belkacem Farhati, University Research between Editing, Design and Techniques, Osama Edition for Publishing and Distribution, Amman-Jordan, 2012, 1st edition, p. 41.
  - 3- Anol Bhattacharjee ; Social Science Research: Principles, Methods, and Practices; sage publication ; london ; 2012 ; p.122.
  - 4- Mouhi Eddine Mukhtar, The Model Plan for Research and Scientific Theoretical and Field Studies, University of Kasdi Merbah Ouargla, Algeria, academic year 1999-2000, p.10.
  - 5- Ibid op cit.
  - 6- Mohamed Elaghali, Al-Mukhtasarfi Foundations and Methods of Research in the Social Sciences, Knowledge Library: Marrakech (Morocco), 2005, 1st edition, pg. 63.65.
  - 7- Maurice Angers, Scientific Research Methodology in the Humanities, Practical Exercises, Translated by Bouzid Sahraoui and Kamal Boucherf, Said Sabaoune, ELkasba Edition for Publishing, Algeria, 2006, p. 120.
  - 8- Mohamed Elaghali, Al-Mukhtasarfi Foundations and Methods of Research in the Social Sciences, Knowledge Library: Marrakech (Morocco), 2005, 1st edition, pg. 63.65.
  - 9- Benoit Gauthier et all ; **recherche sociale de la problématique a la recherche des données** ; 5 emeedit ; presse université de Québec ; 2009; p. 58.
  - 10- Benoit gauthier ; op cit ; p.109.
  - 11- Guidere Mathieu : **Methodologie de la recherche, Guide du jeune chercheur**, edition ellipses 2004, paris , 22.
  - 12- Rachid Zarwati, Trainings on Scientific Research Methodology in the Social Sciences, Houma Edition for printing, 1st edition, 2002, Algeria, p. 75.

- 18-19 قسنطينة ، الجزائر ، 1997 ، ص ، فضيل دليو، أسس البحث وتقنياته في العلوم الإجتماعية

<sup>2</sup>- العربي بلقاسم فرحاتي، البحث الجامعي بين التحرير والتصميم والتقنيات، دار أسامة للنشر والتوزيع، عمان-الأردن، 2012، ط1، ص 41.

with a certain significance, which is what generates According to certain stages, what is known as the variable<sup>3</sup>.

We can summarize this element in what Dr. Mohieddin Mukhtar touched upon in his lectures, "The Model Plan for Research and Theoretical and Field Scientific Studies", about the problematic as the fulcrum around which any scientific research revolves, because the problematic is a question that requires a solution, or it is a theoretical issue or A process for which there is no direct matching solution<sup>4</sup>.

To answer this question, the researcher should: <sup>5</sup>

- Shows the parameters of the problematic (the main axes).
- Define the boundaries of the problem.
- The reasons that led to selecting it as a study problematic and not others.
- The nature of the circumstances in which the problematic arose and those surrounding it.
- Its historical development, if it has a historical dimension.

In short, the problematic is an attempt to answer the following questions:

- What do I want to search?
- Why this topic?
- How do I search?
- Where?, when?

Thus, the problematic is an essential step in any scientific research if it is not its pillar, it is built based on specific stages since the perception of the problem, which is known as the starting question about a topic, phenomenon or problem, which requires research, diagnosis and analysis based on research methods and tools appropriate to the nature of the topic to reach results or solutions to them, in a relative manner to the relativity of the human sciences in themselves, stemming from the lived reality, whether through the direct observation of the researcher or at the request of an official body that suffers from a problematic that requires research and investigation; The construction phase is followed by conditions that must be observed and adhered to, and we will address them in the following elements and as shown in Appendix N° 01.

#### ***How are the main question and sub-questions of the problematic formulated?***

As it is known methodologically, the research problematic ends as an essential part of the construction phase with a main question of the research problematic- for what is known as the general question - as well as subsidiary questions that emanate from it, as questions asked that require a solution, which in turn reflect the variables, dimensions and indicators of the research subject, taking into account that this is in a form clear and simple, away from the use

---

<sup>3</sup> \_ AnolBhattacharjee ; **Social Science Research: Principles, Methods, and Practices**; sage publication ; london ; 2012 ; p.122.

<sup>4</sup> - محي الدين مختار، "الخطة النموذجية للبحوث والدراسات العلمية النظرية والميدانية"، جامعة قاصدي مرباح ورقلة، الجزائر، السنة الجامعية 1999-2000، ص 10 .

<sup>5</sup> - نفس المرجع، نفس الصفحة.

of complex or incomprehensible terminology, including the exact scientific subtraction of it, away from the colloquial or intuitive approach put forward by non-specialists.

It must be noted that the sub-questions have a close relationship with the research tools. For example, the questionnaire questions are translated in the form of axes, and in turn reflect the research hypotheses as suggested answers to the sub-questions, and the separation between this overlap and interdependence between all stages of scientific research is only for methodological necessity, as they are complementary to each other and it is difficult to move from one stage to another without that.

### ***What should be taken into account when constructing the problem?***

Jacques Cheverier proposes while asking the question that lies in the tiring methodology to reach the formulation of the research topic in the form of a question that follows two methods according to the nature of the research, whether it is quantitative or qualitative, whereas, in quantitative research, the problematic is built and prepared by moving from the general to the specific, as the transition takes place from the stage of defining the research topic to the second stage related to defining a general problem for the research, through which a general question is chosen for it, and in the third stage, the conceptual framework is defined, which will constitute a key to the focused and clear identification of a particular problem, and thus the precise formulation of the research question. Other stages related to hypothesis development, defining the research strategy and collecting data, and then moving to the analysis process and interpreting the results, come later.<sup>6</sup>

This is what is usually known as the oppressive approach, as defining the research problematic usually takes the oppressive form, its summit contains the topic of research that is characterized by broadness and generality, while its base contains the specific aspect that the investigation is really interested in.<sup>7</sup>

As for building the problematic in qualitative research, it depends on an empirical-inductive standpoint, while the first depends on a hypothetical-deductive standpoint. The preparation path begins within the framework of a qualitative paradigm with the following stages:

- Formulating a temporary research problematic based on a situation or situation that expresses a special phenomenon that requires attention.
- A temporary general question and specific questions are formulated to enable the selection of an appropriate research methodology.
- Preparing interpretations based on the sum of the collected data, which in turn is subject to inductive analysis.
- The repeated formulation of the research problematic and the research question, in connection with the assimilation that was achieved during the series of preliminary data collection and analysis.

A problematic formulation in quantitative research differs in criteria from qualitative research, and this is due to the two types mentioned; Quantitative research depends on reading

---

<sup>6</sup> - محمد الغالي، المختصر في أسس ومناهج البحث في العلوم الاجتماعية، مكتبة المعرفة: مراكش (المغرب)، 2005، ط1، ص. 62.63.

<sup>7</sup> موري سأنجرس، منهجية البحث العلمي في العلوم الإنسانية، تدريبات عملية، ترجمة بوزيد صحراوي وكما لبوشرف، سعيد سبعون، دار القصة للنشر، الجزائر،

2006، ص. 120.

books and documents, and therefore it is a deductive hypothesis that emerges from a quantitative paradigm. While qualitative research depends on an empirical-inductive standpoint, its tools are mainly represented in the interview, questionnaire and observation...etc.<sup>8</sup>

It should be noted that the majority of researchers, when posing their problems, do not clarify the logic of treatment, whether it is deductive or inductive.<sup>9</sup> The matter is completely different during the deductive or interpretative-predictive approach, as the most complex thing in it begins with adoption, that is, the adoption of the theoretical background closest to understanding reality, and here is the essence of the difference between it and inductive logic, as if the latter uses reality to understand reality, the second uses pre-existing thinking to understand it, which means that deduction comes to work on the results of induction, so if inductive or qualitative research, as it is also called, contributes to theoretical formation, then deductive or quantitative research comes to confirm or refute the extent of the theory's ability to explain reality; In other words, deduction works on the variables that were produced in advance as outputs of inductive qualitative research. As for rigor and firmness, they are required in the deductive approach more, as it is not possible to cross the limits of theory in analysis, to achieve understanding and interpretation of phenomena, or to predict them.<sup>10</sup>

#### ***What must be adhered to while identifying the problematic?***

Defining the problematic in this way achieves several advantages that lie in the researcher going directly to the subject of his research and collecting information about it, instead of wasting great effort and time collecting information, then discovering that he does not need it. On this basis, the following must be adhered to:<sup>11</sup>

- Isolating ideas that are far from the subject of the research, and focusing only on ideas that are related to the research, in a clear manner, in the sense of conveying the researcher's ideas and perceptions to others.
- Determining the real dimensions of the studied problematic, because it identifies the parties to the problematic and then analyzes it.
- Transforming an ambiguous situation into an understandable one, using simple and correct words and phrases.
- Highlighting the relationship between the variables of the study in the proposed problem.
- Avoiding contradiction and conflicting opinions within the same problem.

---

<sup>8</sup> محمد الغالي، المختصر في أسس ومناهج البحث في العلوم الاجتماعية، مكتبة المعرفة: مراكش (المغرب)، 2005، ط1، ص-ص 63-65.

<sup>9</sup> Benoit Gauthier et al ; **recherche sociale de la problématique a la recherche des données** ; 5 e medit ; presse université de Québec ; 2009; p. 58.

<sup>10</sup> Benoit gauthier ; op cit ; p.109

<sup>11</sup> Guidere Mathieu : **Methodologie de la recherche، Guide du jeune chercheur**, edition ellipses 2004, paris , 22.

***What are the most prominent criteria for the correct formulation of the research problematic?***

D<sup>f</sup>. "Rachid Zarwati" in his book "Trainings on Scientific Research Methodology in the Social Sciences" presented some guidelines that help in the correct formulation of the research problematic, which we believe is almost sufficient, in addition to what distinguishes it from clarity and brevity; these are the following points: <sup>12</sup>

- The student should get used to constructive critical reading in order to gain sound language.  
Ensure the correct setting of the research topic.
- The student should control the variables of the study and examine the relationship in his mind.
- Deepening the study of the subject and asking the largest possible number of questions, and begins to limit them from what is secondary to what is important to what is more important and is graded according to this ladder, in order to obtain the important and real question for the subject of his research.
- Writing the problematic is a practice, as it remains examined until the end of the research.  
The exploratory study is important in identifying the aspects of the problem.
- Choosing the appropriate time to write without pressure, as the importance of the problematic requires the student to have paved the psychological conditions for it, and to allocate an appropriate time for writing; If the student finds himself in a state of anxiety and regression in the subject and the problem, he does not start writing before eliminating the tension; As well as controlling the time, he does not let the time go by, and at the moment of pressure he writes, here he moves away from the correct construction.
- The problematic is the result of repeated reading by specialists on the topic, and the student should not write his problematic before getting to know it from the point of view of different specialists.

Get used to the sociological language before writing.

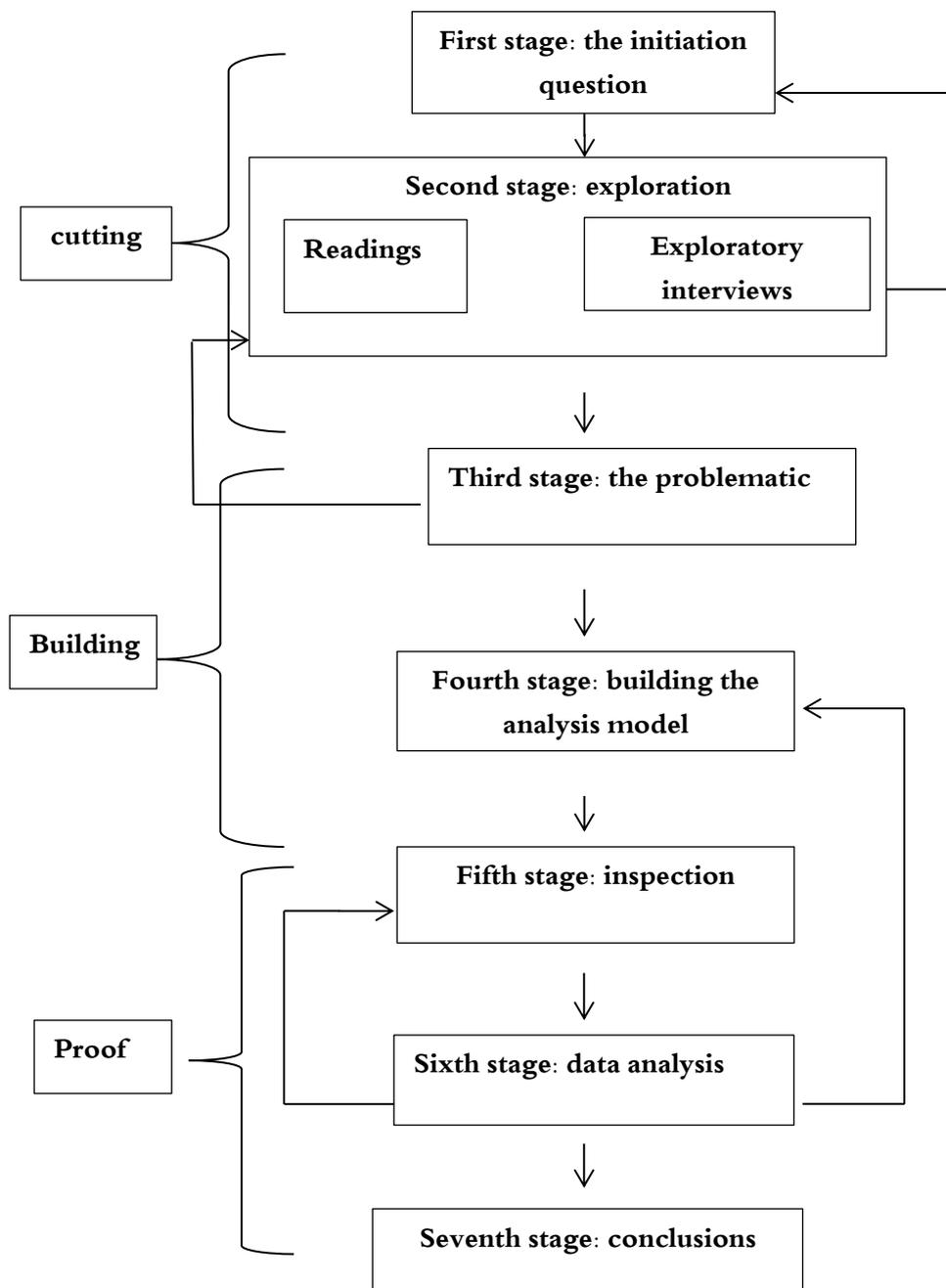
## **Conclusion**

We concluded that the construction of the problematic requires passing through specific stages, which must be followed and adhered to to ensure its proper presentation, with the need to take into account (during its conceptual construction) its overlap with the various stages of scientific research as it is integrated, and the separation between them is only for methodological necessity only, despite this relativity, for the relativity of the human sciences in and of themselves.

---

<sup>12</sup> رشيد زرواتي، تدريبات على منهجية البحث العلمي في العلوم الاجتماعية، دار هومة للطبع، ط1، 2002، الجزائر، ص 75.

**Appendix N°. 01:** It constitutes the stages of scientific research in order to clarify how the problem is formulated and constructed



Source : Raymond Quivy, Luc van Campenhoud, Manuel de recherche En Sciences Sociales – Bordas, Paris, 1988, p82.

## List of references

*In the Arabic language:*

Larbi Belkacem Farhati, University Research between Editing, Design and Techniques, Osama Edition for Publishing and Distribution, Amman-Jordan, 2012, 1st edition, p. 41.

Fodil Deliou, Research Foundations and Techniques in the Social Sciences, Constantine, Algeria, 1997, pp. 18-19.

- Rachid Zarwati, Trainings on Scientific Research Methodology in the Social Sciences, Houma Edition for printing, 1st edition, 2002, Algeria, p. 75.
- Mouhi Eddine Mukhtar, The Model Plan for Research and Scientific Theoretical and Field Studies, University of Kasdi Merbah Ouargla, Algeria, academic year 1999-2000.
- Mohamed Elaghali, Al-Mukhtasarfi Foundations and Methods of Research in the Social Sciences, Knowledge Library: Marrakech (Morocco), 2005, 1st edition, pg. 63.62.
- Maurice Angers, Scientific Research Methodology in the Humanities, Practical Exercises, Translated by Bouzid Sahraoui and Kamal Boucherf, Said Sabaoune, ELkasba Edition for Publishing, Algeria, 2006, p. 120.
- Mohamed Elaghali, Al-Mukhtasarfi Foundations and Methods of Research in the Social Sciences, Knowledge Library: Marrakech (Morocco), 2005, 1st edition, pg. 63.65.

***In Latin language:***

- AnolBhattacharjee; Social Science Research: Principles, Methods, and Practices; sage publication; London; 2012; p.122.
- Benoit Gauthier et all ; recherche sociale de la problématique a la recherche des données ; 5 emeedit ; presse université de Québec ; 2009; p. 58.
- GuidereMathieu: Methodologie de la recherche· Guide du jeunechercheure, edition ellipses 2004, Paris, p22.
- Raymond Quivy, Luc van Campnhoud, Manuel de recherche En Sciences Sociales – Bordas, Paris, 1988, p82.

***Margins:***