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## INITIAL STEPS IN PREPARING A SCIENTIFIC CONCEPT OUTLINE – FORMULATING THE PROBLEM AND DETERMINING THE RESEARCH SUBJECT

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**Abstract:** This paper focuses on the initial steps in preparing a scientific concept outline, with a particular emphasis on the process of formulating the problem and determining the research subject. The aim of the research is to analyze the key steps and strategies that researchers need to apply in this early stage of the research process to ensure clarity, relevance, and feasibility of their research plans. Basic concepts and definitions related to problem formulation are explored, emphasizing the importance of accurately identifying the research problem to be investigated. Various methods and techniques that researchers can use in the process of formulating the problem and determining the research subject are analyzed. Examples of best practices and case studies are presented to illustrate the application of these methods in different scientific disciplines.

**Key words:** research, methodology, draft of a scientific idea.

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## Introduction

The research process is typically divided into a specific number of components or phases, with the number varying from author to author. From a formal perspective of scientific research, it can be discussed in terms of four phases, namely (1) collecting and organizing individual facts, (2) formulating a hypothesis that can explain the collected material, (3) testing the hypothesis, and (4) theoretical generalization and establishing scientific laws. Methodological procedure, instead of phases, can also be expressed through components, implying a deviation from the typical sequence of steps such as (1) research question, (2) theory, (3) data, and (4) data utilization (King et al., 1994). Simić, in his structure of scientific research, distinguishes (1) problem identification, (2) hypothesis formulation, (3) hypothesis testing (verification), and (4) practical application of solutions (2002: 34).

Most authors in contemporary methodological literature identify several phases in scientific research. Kumar (2011), for example, extensively examines the structure of the research process involving three phases and eight steps that need to be taken. Firstly, a decision must be made regarding the subject of the research. Then, during the second phase, planning is undertaken to clearly provide answers on how the research on the chosen phenomenon will be conducted. The final, third phase pertains to the actual implementation of the research. Although the first phase involves only one step – formulating the research problem (or subject) – this task requires considerable intellectual effort from the researcher. Research planning, as Kumar sees it, should include the following four steps: (1) conceptualizing the research approach; (2) constructing data collection instruments; (3) sample selection; and (4) writing the research proposal. Finally, conducting the research involves three steps: (1) data collection; (2) data organization and analysis; and (3) writing the research report.

Within this work, based primarily on Kumar's model of the research process structure, activities within the planning and implementation of scientific research are briefly identified. The quality of research planning is largely influenced by the author's creativity. This creativity later transforms into appropriate content during the research implementation through the application of specific research methods, techniques, instruments, and procedures.

The majority of the work focuses on the first two activities in preparing a scientific concept outline. Although the first phase of the research process involves only one step – formulating the research problem (or subject) – this task, as emphasized by Kumar, requires significant intellectual effort from the researcher (2011).

## Research Design

Research design is "the idea of organizing, planning, and conducting research through all its developmental stages," meaning it integrates elements of "epistemological, logical, and technical nature" (Nikolić, 2010: 41). Due to its complexity, research design is not easily defined in a straightforward manner. As a type of scientific document, research design consists of (1) a draft of the scientific concept, (2) a plan for hypothesis verification, report preparation, and utilization of research results, and (3) a research plan. The draft of the scientific concept represents the epistemological and logical basis for conducting research and preparing accompanying documents. It determines the basic guidelines for every research: theoretical, empirical, or theoretical-experiential. Since the draft of the scientific concept is "a unit, a system of scientific-theoretical and methodological attitudes about the phenomenon, problem, subject of research addressed by the project," this document can be considered "exclusively" of a scientific nature based on its characteristics (Milosavljević and Radosavljević, 2006: 420).

Preparing a draft of the scientific concept is a necessary activity to lay valid foundations for research at the outset. It is widely believed that the draft of the scientific concept is developed for the purpose of "initiating, motivating, and attracting" the attention of potential research clients (Milosavljević, 2013: 160). Moreover, in some situations, donors and financiers do not require a draft of the scientific concept but only a properly filled-out form that generally includes essential elements of the draft.

The draft of the scientific concept comprises six parts: (1) problem formulation; (2) determination of the research subject; (3) research objectives; (4) hypothetical framework of the research - hypotheses; (5) research methods; and (6) scientific and social justification of the research. Each part of the draft of the scientific concept, during the creation of this document, deserves appropriate attention to fulfill its role and purpose. Each part "must be elaborated to a level that will enable a complete understanding of the essence of the research project" (Bazić and Danilović, 2015: 19). Research practice shows that certain parts of the draft are often omitted or summarized. Usually, "problem formulation" and "justification of the research" are omitted, while "research subject and objectives" are merged or replaced, and the harmful consequences of such practices are manifold because in these cases, "the connection between the subject of specific research and the problem and phenomenon as a whole is missing, the research subject is not developed and defined adequately, the level of knowledge to be achieved through specific research remains insufficiently determined, hypotheses are unsuitable for testing, etc." (Milosavljević and Radosavljević, 2006: 422).

### *Formulation of the Problem*

Every research begins with the initial determination of the research problem to establish a relationship between the theoretical foundation and the specific research project. Based on this, later steps involve determining the most favorable ways to conduct the research to gain explanations about the phenomenon under study. But how is the problem formulated? How does the researcher decide on a specific problem and, later, on the research subject? Clear-cut answers cannot be offered to these questions (Dašić, 2023b). What is certain is that the rules of choice during these early activities of the research process are less formalized compared to later stages of that process. Personal experience and values upheld by individual researchers often provide motivation for addressing certain phenomena.

From the perspective of potential scientific contribution, personal reasons are neither necessary nor sufficient to confirm the choice of a specific research subject. In other words, it is not important what a particular researcher thinks, but "the academic community cares only about what can be demonstrated" (King et al., 1994: 15). Sources of ideas are varied; for example, problems observed in practice, literary sources, replication of research, etc. (Simić, 2002: 42). It should be noted that "a large number of scientists became famous not because of their ability to solve a problem, but because of their wisdom in choosing it" (Wilson, 1952: 375).

During the initial stage of research design, it is necessary to formulate the research problem in as precise a manner as possible. The precisely defined research problem, as well as the research subject (in the next stage), are arrived at through a process of narrowing down generality. In other words, a clear distinction is drawn among concepts such as topic, problem, purpose, and research subject (research question). The differences between these concepts are illustrated in Table 1 with a specific example.

The formulation problem of the research subject manifests to varying degrees among different categories of scientific workers. It is certainly more pronounced among younger individuals starting their scientific careers with a bachelor's thesis, master's thesis, or doctoral dissertation.

Beginners in scientific work are considered scientific workers until the completion of the doctoral dissertation. Hence, topics for scientific work are mostly proposed by experienced scientists, in consultation with candidates. Sometimes, "the candidate themselves proposes the research problem for the doctoral dissertation, and the methodology is jointly developed" (Sarić, 1989: 54).

**Table 1.** The path from the problem to the subject of research

<i>Research topic</i>	Poor student performance in public schools
<i>A research problem</i>	Poor academic performance of students from marginalized social groups
<i>The purpose of the research</i>	Identifying factors influencing poor academic performance of students from marginalized groups
<i>Research question</i>	Do dysfunctional families affect the poor academic performance of students from marginalized groups ?

*Source: authors*

Regardless of their type and scope, research "never" captures a phenomenon in its entirety, that is, "all factors of its structure, function, relationships, and connections" (Milosavljević and Radosavljević, 2006: 422). Accordingly, knowledge about any phenomenon is gradually acquired. Well-formulated research problem is one of the prerequisites for successfully accomplishing this task. The formulation of the research problem consists of three parts: (1) hypothetical statements about the problem; (2) justification of the importance of the research; and (3) review of basic theories and results of previous research.

During the formulation of the problem, three phases occur successively: (1) clearly identifying the phenomenon or process to be investigated (for example, organizational culture); (2) relating the identified phenomenon to other phenomena or processes in the environment (for example, how organizational culture influences employee behavior or motivation); and (3) systematically collecting existing scientific and other knowledge about the identified phenomenon or process (for example, gaining insights into all scientific and empirical knowledge related to organizational culture and its impact on employee behavior and motivation) (Bazić and Danilović, 2015a: 20).

*Hypothetical Statements about the Problem*

Hypothetical statements are part of the problem formulation that: (1) defines the process or phenomenon to which the research relates; (2) "identifies parts (factors), dimensions, and properties that can be considered the research problem"; and the identified parts (3) "are organized into units and defined, then classified according to similarity and ranked based on predetermined criteria" (Milosavljević and Radosav-

ljević, 2006: 423). Hypothetical statements are of great help in defining the research subject as they provide a basis for distinguishing various aspects that are also worth the research effort (Dašić, 2023a). During the creation of this part of the problem formulation, various mental and logical operations are used; primarily, analysis, induction, specialization, and classification.

Hypothetical statements should not be equated with hypotheses. Hypothetical statements are largely true statements, while hypotheses are based on assumptions. In later stages of drafting the scientific concept – after addressing the research subject and objectives – the hypothetical framework presented is further specified and concretized, focusing on those statements whose truthfulness (through hypothesis verification) will be established.

### *Defining the Significance of the Research*

Determining the significance of the research, as the second part of the problem formulation, is a necessary and complex activity. Essentially, research is viewed through social and scientific significance. The first criterion pertains to the problem being "significant" in the real world. The chosen topic should be relevant to political, social, economic, and cultural life, helping in understanding and predicting events that can lead to harmful or positive consequences (Đašić, 2023b). When explaining the social significance, finding the right balance is crucial. One of the more common mistakes in drafting this part of the problem formulation is exaggerating the significance of the specific research. Researchers sometimes resort to this practice to attract potential research clients (Dašić et al., 2023).

In determining the scientific significance, the research project should make a concrete contribution to scientific knowledge by enhancing the ability to construct verified scientific explanations of some aspect of objective reality. The scientific significance of the research is assessed in terms of achieving certain levels of scientific knowledge or advancements in methodology. The first type of contribution is reflected in understanding the phenomenon itself (epistemological significance), while the contribution to methodology is achieved through the development of technical procedures and instruments, new research techniques, and so on. In terms of knowledge or research methods, this contribution can be heuristic (revealing new knowledge) or verificational (testing existing knowledge). Explicit contribution to increasing the body of scientific knowledge is achieved in various ways. For example, King et al. (1994: 16) suggest the following possibilities:

1. Take a hypothesis that is prominently present in the literature but has not been systematically studied. If evidence is found in favor of or against the hypothesis, a scientific contribution is made.
2. Choose an accepted hypothesis in the literature that is suspected to be untestable (or believed to be inadequately confirmed) and investigate whether it cannot be refuted or if another theory is correct.
3. Attempt to resolve or provide new evidence for existing controversial issues, or perhaps prove that the controversy was unfounded from the beginning.
4. Shape the methodological approach to illuminate or evaluate unresolved assumptions in the literature.
5. Argue that a significant problem is overlooked in the literature and then contribute by systematically studying that problem.
6. Demonstrate that theories or data from the literature developed for one purpose can be applied in other scientific disciplines for entirely different problems.

### *The results of previous research*

The results of previous research on the problem being investigated are presented in the last part of the problem formulation. This sort of "snapshot" of basic theories and research results is, in terms of volume, the "most significant" part of most problems and research projects (Mihailović, 1999: 88). The primary purpose of familiarizing oneself with scientific and professional literature is to gain insight into existing knowledge about the selected problem and to define the "theoretical, conceptual, methodological, and strategic" foundations of one's own research (Milosavljević, 2013: 159). The effort invested in understanding the results of past research will pay off multiple times for the researcher; primarily, it will facilitate the project's implementation. Analyzing previous results "reveals the initial foundation of the research, its breadth of insight and selectivity, and also indicates some basic starting points that the researcher will use in the research, forming opinions, defining concepts, determining the content of the research subject, hypotheses, indicators, methods, and techniques of data collection, processing, and interpretation" (Milosavljević and Radosavljević, 2006: 428). Therefore, it is useful to gain insight into results of dual character, namely: (1) knowledge directly related to the researched phenomenon or process, and (2) knowledge indirectly related to the chosen problem. Within these two segments, the results of not only theoretical but also empirical research from various scientific fields and disciplines are analyzed.

In this part of the problem formulation, the "level of knowledge" from which the research process starts should be emphasized, highlighting the "most significant results" of previous research, and, if possible, identifying authors and works that have made the "greatest contribution" to understanding a specific problem (Bazić and Danilović, 2015: 20). The extent of these activities depends on the type of research. Heuristic and fundamental research requires a more extensive overview of previous results, often citing hundreds of bibliographic units. Action research, on the other hand, usually relies on a smaller number of widely accepted assumptions, mentioning only basic literature sources.

It is of great importance to familiarize oneself with relevant literary sources from a methodological perspective, especially when researchers decide to apply a methodological approach, method, technique, or instrument for the first time. Drawing on previous work on a specific problem is also beneficial when planning a project using the same approach or methodology, "as they form the basis of subsequent research phases – from selecting appropriate methods, not only based on knowledge of their strengths and weaknesses and their relevance to research goals and subjects, but also based on knowledge of how they have proven effective and successful in previous related research. Consequently, this also applies to data organization and analysis. If certain classification systems have proven suitable in previous research, they can be used in new research as well" (Milosavljević, 2013: 159).

A good understanding of literary sources, especially relevant theories, allows the researcher to define the initial conceptual-categorical apparatus and hypothetical framework of the research project well. Thus, studying scientific and professional literature emerges as a necessary condition for "defining the theoretical, conceptual, methodological, and strategic foundations of one's own research and the way to explore something for which there already exist scientific knowledge" (Milosavljević, 2013: 158). Therefore, the central place in analyzing previous research results belongs to scientific theories.

### *The role of theory in research*

In many sciences, there are multiple equally acceptable general approaches to investigating a phenomenon or process. This is especially true in social sciences, where three positions (or ontologies) are predominantly represented – culturalism (or interpretive approach), structuralism, and rationalism. The third approach implies the rationality of individuals in making choices based on assessing the positive and negative aspects of a social action (behavior). The differences among these ontologies are depicted in Table 2. As can be seen from the presented table, the category



of "interest" (if taken, for example, as the subject of research) can be approached from three aspects: (1) interest seen as a result of individual preferences, (2) interest seen through the lens of social identity, and (3) interest viewed in the light of structural position.

The problem of determining the most general approach to research is present not only in the study of social phenomena but also in certain natural processes and phenomena. Sometimes, there is a dilemma of whether to approach the research subject from the perspective of the whole or from the perspective of parts. In such cases, it usually involves phenomena that must be considered in terms of their relationship to other phenomena and processes within the given system. Now, after determining the basic orientation, let's turn to questions related to the actual selection of theory/theories that will serve as a source of hypotheses for research.

Once a basic standpoint is taken, or a combination of them (which is less common), detailed study of theories is undertaken, including their selection, from which the research subject and the entire subsequent research work will later emerge. There are different ways of moving in terms of theories during research. For example, one can start: (1) from one and end with one theory, (2) from many and end with one theory, (3) from one and end with many theories, and (4) from many and end with many theories.

Theories about social phenomena are usually expressed by a smaller number of specific descriptive and causal hypotheses. A theory must be consistent with previously gathered evidence about a specific research question, and if a theory ignores existing facts, then it is nothing but an "oxymoron." Developing theoretical propositions typically appears as the first phase of the methodological procedure. It sometimes indeed appears first in practice, although that doesn't have to be the case. In fact, a theory cannot be developed without knowledge of previous work on a specific problem and gathering some data, even assuming that the chosen question has not been studied in the literature (Vuković, et al. 2023).

**Table 2.** Differences among the main paradigms

Dimension	Paradigm		
	Rationalism	Culturalism	Structuralism
Interests:	Individual preferences and beliefs	Social identities	Structural position
Identities:	Autonomous preferences and beliefs	Composed of individuals	Derived from structure
Institutions:	Equilibrium of strategic interactions	Expression of norms	A reflection of power relations

(Source: Lichbach, 2003: 132)

Which theories should a researcher pay attention to as a source of possible hypotheses for their research? Firstly, these are theories that could turn out to be incorrect. The philosophy of science has long shown that much more is learned from incorrect theories than from those that are presented so broadly that they cannot possibly be wrong in principle. Second, to ensure the testability of a theory, one should choose a theory from which as many observational implications can be derived as possible. This allows for a variety of ways to test the theory – with more data and greater diversity. Third, the proposed theory for testing should be as specific as possible. Vaguely stated theories and hypotheses serve no purpose other than to create confusion.

Finally, there are researchers who advocate the principle of parsimony, according to which simpler theories are more likely to be confirmed. Parsimony is therefore a judgment, or even an assumption, about the simple nature of the world. This stance is not equally receptive in all academic circles. One should never insist on parsimony as a general principle of theory construction, but rather as a useful tool in situations where there is already some knowledge about the simplicity of the aspect of the world being studied.

Younger researchers in choosing a theory can rely on comprehensive evaluations of existing theories in a specific scientific discipline (Dašić, et al., 2023). These comprehensive analyses of current theories are periodically published in the form of review articles in scientific journals and monographs. Review articles, as a specific category of scientific work, represent a valuable source and aid in the decision-making process regarding the choice of theory, especially in cases where the existing state of

research is described in relatively new, specialized disciplines. As an illustrative example, one can mention the study by Bruton et al. (2004) in which they assessed the contributions of different theories in the field of international strategic management – an area that began to develop more intensively in the early 1990s. The mentioned authors view international strategic management from the perspective of institutional theory, social network theory, organizational learning theory, and theory based on company's own resources. Similarly, one should start the analysis of results from previous theoretical sources for any selected research problem.

### **Definition of the Research Subject**

The research subject, considering its role, place, and significance, represents the "core" part of the research proposal (Bazić, 2013: 72). This part of the research proposal is the "central and pivotal part of every project" (Mihailović, 1999: 88). Since the research subject directly impacts other parts of the project (objectives, hypotheses, and research approach), its successful definition requires considerable effort from the researcher.

Unlike formulating the research problem, "it is much more difficult and complex to define the research subject well because, in addition to knowledge and experience, it also requires a good understanding of the scientific field and methodology relevant to the chosen problem" (Milosavljević, 2013: 167). This task is easier when it comes to descriptive research, where the research subject is typically broadly defined. Defining the research subject is more complex in the case of explanatory, applied, and developmental research, and most challenging, of course, in quantitative research, which, in addition to questions from previous types of research ("what," "where," and "why"), also includes the crucial additional question – "how much."

The research subject more concretely expresses the title of the research project itself. For example, if the title of the research project is "The Role of Communication Satisfaction in Enhancing Employee Organizational Commitment," then that is also the research subject. In this case, the research subject relates to both phenomena being investigated, namely "communication satisfaction" and "employee organizational commitment," and their interrelationships. Based on this example, it is easy to see that the research subject is determined by two initial elements: (1) the phenomena whose relationship is being investigated and (2) the nature of the relationship established between them (Lukić, 1989: 228). The title of the research project preliminarily defines the research subject. However, the title does not

encompass all factors necessary for a complete definition of the research subject. A comprehensive definition of the research subject involves its theoretical and operational determination.

### *Theoretical Definition of the Research Subject*

The theoretical definition of the research subject aims to clearly define the content of what is to be investigated. This content is most commonly derived through deduction from established scientific knowledge, primarily relevant theories related to the research problem. The importance of this part of the research project stems from the fact that it not only expresses the "philosophical, conceptual-theoretical, and scientific-theoretical perspective" on the research subject but also provides a preliminary indication of the use of specific methods (Milosavljević and Radosavljević, 2006: 432).

When presenting theoretical foundations, it is not enough to simply identify and briefly outline selected theories; it is more significant to justify such choices. Similarly, stating that deductive or inductive approaches will be applied in the research is not sufficient. Moreover, it is not acceptable, as is often the case in practice, to list a series of general and specific theories without any explanation or connection to the goals and specific subject of the research. On the other hand, referring to a theory post facto and merely formally presenting the theories on which the research relies means nothing for the quality and effects of the research unless they are actually applied during the research process (Milosavljević, 2013: 168).

As sources for the theoretical definition of the subject, the following are used: (1) scientifically researched and verified facts; (2) unverified scientific knowledge; (3) empirical-experiential, non-scientific knowledge (although they may not be devoid of any scientific basis); and (4) so-called nonexistent knowledge, or what can be assumed about the relationships between phenomena covered by the research subject based on experiential and scientific knowledge.

The last two sources are exclusive to heuristic research. These investigations, mostly related to processes and phenomena concerning human behavior, face several challenges. Human behavior is primarily conditioned by specific economic, political, moral, or legal environments, as well as by belonging to various social groups or societies (cultures). Since certain types of phenomena of this nature lack adequate scientific knowledge, researchers are expected to demonstrate "a high degree of creativity" and possess "imagination and intuition" in conducting research (Bazić and Danilović, 2015a: 23; Mihailović, 1999: 90).

A significant part of the theoretical determination of the research subject involves the categorical-conceptual system and language. During the development of the categorical-conceptual system, scientifically verified knowledge is used (based on the analysis of relevant theories and theoretical models), using only those concepts that will be included in the research. Among the concepts within such a formed categorical-conceptual system are: (1) concepts adopted in their entirety; (2) concepts adopted in terms of content but with selected and specified terms; (3) concepts that are restructured; (4) concepts constructed from two or more concepts; and finally, (5) new concepts created for the needs of the research (Milosavljević and Radosavljević, 2006: 435).

### *Operational Definition of the Research Subject*

The operational definition of the research subject represents the final concretization of the phenomenon to be investigated. Firstly, all factors of the subject (phenomenon or process) are clearly stated, and then the research is dimensioned in terms of time, space, and disciplinary aspects. These are, in fact, the four elements of a complete definition of the research subject.

The content factors of the research subject must be developed from general concepts to specific and individual concepts starting from general concepts. The basis of analysis in this sense are the interconnections and relationships of elements within the structure of the phenomenon. This is significant from a methodological perspective as it provides the content of specific and individual hypotheses. In numerous research projects across various scientific fields, the constant factors of the research subject are generally identified as: (1) the content of the phenomenon; (2) the conditions under which the phenomenon occurs; (3) the forms in which the phenomenon appears; (4) the time of occurrence of the phenomenon; (5) the space in which the phenomenon occurs; (6) the effects of the phenomenon on other phenomena; and (7) the actors in the realization of the phenomenon (Mihailović, 1995).

In the first part of defining the research subject, which refers to the content factors of the subject, it is necessary to accurately list the factors that will be directly investigated during the project's implementation. Using the previously mentioned example of the research topic, "The Role of Communication Satisfaction in Enhancing Employee Organizational Commitment," the theoretical definition explains the basic categorical concepts of the research: "communication satisfaction" and "organizational commitment." These two basic (general) categorical concepts are further broken down into specific factors during the operational definition of the research subject, while these specific factors are eventually dissected into individual factors.

For instance, the first basic concept – "communication satisfaction" – can be broken down into specific factors such as: (1.1) "communication with superiors," (1.2) "communication with colleagues," and (1.3) "communication channels." Similarly, the second basic concept ("organizational commitment") can be broken down into specific factors such as: (2.1) "affective commitment," (2.2) "continuance commitment," and (2.3) "normative commitment." After completing the operationalization of basic concepts, i.e., their breakdown into specific factors, the operational definition of the subject continues by further dissecting specific factors into individual factors. For example, specific factor 1.3, "communication channels," can be further broken down into individual factors such as: (1.3.1) "communication via email," (1.3.2) "communication at business meetings," and (1.3.3) "communication through rumors and gossip."

The same process should be applied when dissecting the other two specific factors of the first concept, or all three specific factors of the second concept. It is expected that during the research, structural and functional relationships and connections between the named factors will be examined. Operationalization thus sets the framework for the planned research. Initiating the development of content factors should not occur before a full explanation of the research subject is provided. In other words, during the elaboration of content factors of the research subject, efforts should be made to avoid the "most difficult," and perhaps "most common" mistake; that is, failing to define a certain subject more precisely (Milosavljević and Radosavljević, 2006: 438).

In the second part of the operational definition of the research subject, temporal determination is approached, which relates to the period covered by the research subject; for example, hour, day, week, month, year, decade, or century. This time does not refer to the duration of activities in researching the selected subject but rather to the period during which the subject exists and is covered by the research.

In the third part of the operational definition of the research subject, the space to be included in the research is determined. Space, like time, is also one of the factors of the phenomenon. The research space, for example, encompasses the space of one or more companies, regions, countries, institutions, organizations, etc.

Finally, in the fourth part, the subject is determined disciplinarily. The researcher opts for one (intradisciplinary approach) or multiple scientific disciplines (interdisciplinary approach) within which to investigate a particular phenomenon.

## Conclusion

The preparation of a scientific proposal is a crucial phase in the research process. The first step is identifying the research topic, which involves reviewing the literature and identifying gaps or deficiencies that your study can address. Next, it's essential to clearly define the research objectives and formulate hypotheses or research questions to be investigated. Subsequently, selecting an appropriate research methodology and collecting relevant data are necessary. It's important to consider the ethical aspects of research and ensure that all activities comply with standards and regulations.

Once the data is collected, the analysis of results and interpretation of findings in the context of the set objectives follow. Finally, drafting a scientific paper that includes an introduction, methodology, results, discussion, and conclusion is necessary. It's important to note that preparing a scientific proposal is a dynamic process that may require revisions and additions as the research progresses and new information becomes available.

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## Conflict of interests

The authors declare no conflict of interest.

## References

1. Bazić, M., Danilović, N. (2015). Nacrt naučne zamisli projekta istraživanja. *Mega-trend revija*, 12(3): 5-28. DOI: 10.5937/MegRev1503005B
2. Bruton, G. D., Lohrke, F. T., Lu, J. W. (2004). The evolving definition of what comprises international strategic management research. *Journal of International Management*, 10(3): 413-429. DOI: 10.1016/j.intman.2004.05.003

Vuković, M., Dašić, D., Vuković, A., (2024). Initial steps in preparing a scientific concept outline – formulating the problem and determining the research subject, *Sport media and business*, 10(1) 75-90.

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3. Dašić D., Kostadinović G., Stanković M. (2023) Ethical aspects of science and scientific knowledge. *International Journal of Cognitive Research in Science, Engineering and Education (IJCRSEE)*, 11(2), 343–350. <https://doi.org/10.23947/2334-8496-2023-11-2-343-350>
4. Дашић Д., (2023b) *Наука и метод - методологија научноистраживачког рада у спорту*. Службени гласник, Факултет за спорт, Универзитет „Унион - Никола Тесла“, Београд
5. Dašić, D. (2023a) Application of delphi method in sports. *Sport, mediji i biznis*-Vol. 9, no 1, 59-71. <https://doi.org/10.58984/smb2301059d>
6. King, G., Keohane, R. O., Verba, S. (1994). *Designing Social Inquiry*. Princeton, New Jersey: Princeton University Press.
7. Kumar, R. (2011). *Research Methodology* (3rd edn). London: Sage Publications Ltd.
8. Lichbach, M. I. (2003). *Is rational choice theory all of social science?* University of Michigan Press.
9. Lukić, R. (2013). *Metodologija društvenih nauka*. Beograd: Savremena administracija.
10. Milosavljević, M. (2013). *Socijalna istraživanja*. Beograd: Službeni glasnik.
11. Milosavljević, S., Radosavljević, I. (2006). *Osnovi metodologije političkih nauka*. Beograd: Službeni glasnik.
12. Mihajlović, D. (1995). *Metodologija naučno-istraživačkih projekata*. Beograd: Centar za primenjenu psihologiju.
13. Nikolić, Z. (2010). *Metodologija naučno-istraživačkog rada*. Novi Sad: Fakultet za ekonomiju i inženjerski menadžment.
14. Simić, D. (2002). *Metode nauke i tehničkog razvoja*. Kragujevac: dsp-mecatronic.
15. Sarić, M. R. (1986). *Opšti principi naučnog rada* (II dopunjeno izdanje). Beograd: Narodna knjiga, Beograd.
16. Šamić, M. (1984). *Kako nastaje naučno djelo* (VI izdanje). Sarajevo: Svjetlost.
17. Vuković, M., Urošević, S., & Dašić, D. (2023). Threats to objectivity in the social science research. *Sports, media and business*, 9(2), 143–158. <https://doi.org/10.58984/smb2302143v>
18. Wilson, E. B. (1952). *An Introduction to Scientific Research*. New York: McGraw-Hill Company.