

## **METHODOLOGICAL BASIS OF RESEARCH IN SECURITY STUDIES**

ANDRZEJ CZOP, PH.D.

*University of Public and Individual Security APEIRON in Cracow, POLAND*

### **ABSTRACT**

---

Security studies are formally functioning for less than five years but have a strong methodological basis, presented shortly in this paper. This include several well-known and broadly-recognized ways of providing the research process, including scientific methods used in social sciences. Author briefly analyses a set of them, showing their advantages and disadvantages and the way they should be used during the whole research process. The need for multidisciplinary studies, including the use of several research tool and techniques, is also stressed.

### **ARTICLE INFO**

---

#### *Article history*

Received: 08.07.2015 Accepted 21.08.2015

#### *Keywords*

Methodology, survey, Delphi method, heuristics, scientific interview

The need for security is one of the basic human needs. Meeting this need is the guarantor of the development of individuals, society, and state organizations. The security is a base, a fundament on which the functioning of modern democratic states and societies is based. To ensure security of its territory is a part of basic obligations of each democratic state, and is the implementation of its internal functions.

Due to the importance of security, the growing interest in this phenomenon is also present in the field of science, which resulted in creation

of an independent scientific discipline – security studies. Previously, security has been the subject of interest of many sciences, such as: law, military, humanities, economy, biology, chemistry, and physical culture. However, due to the importance of this issue in our country, security studies (securitologia) has become a separate scientific discipline. The resolution of the Central Commission for Scientific Degrees and Titles from 28 January 2011, amending the resolution determining the areas of study and areas of art and scientific disciplines and artistic works<sup>1</sup>, submitted to the field of the Humanities disciplines: security studies and defence studies. At the same time, from the disciplines of science, military sciences have been crossed out. However, in August 2011, minister of science and higher education settled the areas for all scientific disciplines in his regulation, under which security science have been included in the area of social sciences<sup>2</sup>. Internal security also has its own B.A. and M.A. degrees<sup>3</sup>.

The security sciences include the multiplicity of security problems in the non-military dimension. Their aim is to provide not only theoretical knowledge about the phenomena connected with the sphere of security, or more precisely the knowledge in order to understand these phenomena, but also their explaining, evaluating and forecasting. The purpose of these sciences is utilitarianism, which is the presentation of the best solutions projects that can be implemented in a continuous quest for more and better meet this basic need of security<sup>4</sup>.

An antonym for security is a threat or a potential basis of unwanted states. Threats are not a category of itself, because it always refers to a specific entity for which they are dysfunctional and can cause harmful consequences. Risks are an important category that determines security<sup>5</sup>. So it is a matter of crucial importance that research in the field of security and

---

<sup>1</sup> M.P. z 2011 r., nr 14, poz. 149.

<sup>2</sup> Rozporządzenie ministra nauki i szkolnictwa wyższego z 8 sierpnia 2011 r. w sprawie obszarów wiedzy, dziedzin nauki i sztuki oraz dyscyplin naukowych i artystycznych, DzU z 2011 r., nr 179, poz. 1065.

<sup>3</sup> M. Lisiecki, *Nauki o bezpieczeństwie jako nowa dyscyplina naukowa*, [in:] L. Grochowski, A. Letkiewicz, A. Misiuk (ed.), *Nauka o bezpieczeństwie. Istota, przedmiot badań i kierunki rozwoju. Studia i materiały*, vol. 1, Wyd. WSPoL, Szczytno 2011, p. 186.

<sup>4</sup> B. Wiśniewski (ed.), *Bezpieczeństwo w teorii i badaniach naukowych*, Wyd. WSPoL, Szczytno 2011, p. 89–90.

<sup>5</sup> A. Misiuk, *Administracja porządku i bezpieczeństwa publicznego. Zagadnienia prawno-ustrojowe*, Wyd. Akademickie i Profesjonalne, Warszawa 2008, p. 17.

public order, were referred directly to threats. The threats are concerned in security studies in the context of their generic identification, determining the intensity of presence, places and reasons, and, in particular, determine their effects and impact on public security.

The second most important determinant that ensure an acceptable level of security is efficiency of activities of State institutions established for protecting the security, as well as of private security companies. The main duties in terms of maintenance of security and public order is the responsibility of the Police as the uniformed formation, armed, providing public service to protect persons, society and the state. So, public security is dependent on the functioning of the Police (the most important formation), but also relies on private individuals such as protection of persons and property companies, so-called private police<sup>6</sup>.

The general objects of research in security science, as well as in the social sciences, are:

- populations and social groups,
- social institutions,
- social processes and phenomena.

Hence the subject of research for security science are the characteristics of objects representing their boundaries, properties, and relationships. Seeing the essence of characteristics and the relation between them and the tested objects, allows to identify the essence of security.

The objects of research have the specific characteristics of empirical, humanities, social and natural sciences, that combined create the subject of research. The result of the study should be a formulation of relations, regularities and rules for the security objects<sup>7</sup>.

Considerations of national security of Poland, intensive development of its economic potential and increasing involvement in shaping of national and regional security environment, enforce the progressive optimisation of the use of all forces and means in order to create an integrated, comprehensive system of defence and national security. Therefore it is necessary to create a legal and formal symbiotic system that specifies the use of human resources for state security (in broad sense) in the process of

---

<sup>6</sup> J. Gierszewski, *Firmy ochrony jako komercyjne organizacje odpowiedzialne za bezpieczeństwo innych podmiotów*, [in:] *Logistyka – Komunikacja – Bezpieczeństwo. Wybrane problemy*. M. Grzybowski (ed.), Gdynia 2009, p. 171.

<sup>7</sup> B. Wiśniewski (ed.), *Bezpieczeństwo w teorii i badaniach naukowych...*, p. 119.

implementation of national security policy by implementing entities at all levels, state, local and private.

Integrating of planning the activities of protection of persons and property companies, and to preparing them at every level, requires a comprehensive approach to the resolution of crisis situations as well as regulation and assigning tasks in the field of collecting, analysing and using the experience of all entities of the national security system, from both the state and the private sector. This is a prerequisite to achieve synergies in the field of security based on a comprehensive use of forces in state security system. Increasing the efficiency of operation of entities responsible for security is possible thanks to the continuous technological development and exchange of knowledge between national security entities and the authorities responsible for management of security by implementing regulations.

The exchange of knowledge, experience and information between public and private sector, and the implementation to daily practice of the best practices in the field of security, affects the increase of security policy effectiveness. Hence the provision of national security should be seen in the context of the whole spectrum of the state activities aimed at raising capability and creating of conditions for maintenance of those capabilities in the event of a conflict or risk increase. One of such preventive action is the build of a formal-legal bases of conducting security policy based on integrated use of experience, involving all of entities responsible for security of Poland.

Security area is characterized by a huge potential and is the source of many actions against threats, not only national but also regional. Potential of security area contributed to generate the system of exchange the experience between protection of persons and property companies and the Police in many countries (in both the public and private sectors). This has created a chance for strengthening the realization of security policy in conjunction with the scientific, technological, and social security development.

The goal of any scientific work is the discovery and disclosure of the fact that until now was unknown (even unknown or incompletely known), and to describe her accurately. This discovery and disclosure of this “new” reality is finding out, showing regularities, as well as clear and readable presentation of the reciprocal causal relationships between objects and research phenomena and explaining the existing relationship between them<sup>8</sup>.

---

<sup>8</sup> M. Turek, A. Michalak, *Zasady i tryb przygotowania, przeprowadzania oraz finansowania przewodów doktorskich i habilitacyjnych...*, p. 40.

In the scientific literature there are different divisions of scientific work taking into account various criteria. One of the essential criteria of division is due to the goal. On this basis, we can distinguish the following types of research papers:

- scientific research,
- theoretical,
- conceptual,
- analytical,
- synthetic,
- case studies,
- experimental,
- methodological.

The scientific research presents an explanation of certain facts, hypotheses, solutions obtained by application of recognised scientific methods. This type of work often introduces new conceptual structures, a new perspective on reality on the basis of a credible scientific material. The aim of research is to answer the posed question that no one has replied yet. In research, often the most recent advances in the field of knowledge are presented<sup>9</sup>.

In each test the empirical section of unknown reality, according to Zygmunt Zimny, we can distinguish:

- research material – interesting elements of reality that we want to be tested,
- the subject of research – the properties of a particular object (variable and the values of these variables), which are the subject of our study,
- the objective of the study – that is the properties of the material you want to meet in the framework<sup>10</sup>.

The goal of research is an important criterion for the division of the research process. Bolesław R. Kuc, due to goal, divides research into fundamental, applied and implementation. Basic research is being done in order to explain the phenomena, processes, things still unexplored. These researchers hope to discover new scientific rules, formulate of new theories, or new thesis. Applied research are usually understood as intended to make use of the research results. A completely separate category are implementation researches that rely on the development of methods and techniques for the application of scientific research results into production

---

<sup>9</sup> Ibidem, p. 40–41.

<sup>10</sup> Z. Zimny, *Metodologia badań społecznych*, Wyd. Wyższej Szkoły Pedagogicznej w Częstochowie, Częstochowa 2000, p. 6.

process. "The implementation research include the transfer of applied research from laboratories to production practices, to specific areas of life"<sup>11</sup>.

According to Mieczysław Łobocki, considered an authority in the field of methodology of education studies, any scientific work is aimed at enriching scientific achievements within the framework of scientific discipline, within which it is conducted. Each individual researcher or team of researchers take the effort to make progress in scientific knowledge<sup>12</sup>.

Agencies responsible for national security (external and internal security) in the face of threats of interdisciplinary or problem states, should benefit from a scientific academic achievements in the formulation of specific strategies for its development<sup>13</sup>.

It is important that the presented research were fundamental studies. Their results, as assumed, should contribute to enrich scientific achievements in the framework of security science and discover a slice of security and public order reality, which so far no one has not yet discovered. The results should end with contributions that can be put into practice in the framework of functioning institutions responsible for security.

Turning to the security sphere, after Mirosław Sułek, we can say that the issues concerning security systems have two directions:

- shaping of security systems,
- calculating, monitoring security systems.

Between these two directions there is a close relationship, because the results of calculation and control of security systems contribute to the proper shape. Research carried out in security systems are a quasi-control system. The evolution of security is only possible in close connection with his assessment, including an assessment of the institutions responsible for security<sup>14</sup>. According to Bernard Wiśniewski, research in security sphere not only have the diagnostic purpose to show the slice of reality, but also

<sup>11</sup> B.R. Kuc, *Funkcje nauki. Wstęp do metodologii. Nauka nie jest grą*, Wyd. PTM, Warszawa 2012, p. 156.

<sup>12</sup> M. Łobocki, *Wprowadzenie do metodologii badań pedagogicznych*, Oficyna Wydawnicza „Impuls”, Kraków 2009, p. 15.

<sup>13</sup> J. Maciejewski, *Znaczenie badań akademickich w kontekście bezpieczeństwa transinstytucjonalnego*, [in:] P. Sienkiewicz, M. Marszałek, H. Świeboda (ed.), *Metodologia badań bezpieczeństwa narodowego. Bezpieczeństwo 2010*, vol. 1, Wyd. Akademii Obrony Narodowej, Warszawa 2010, p. 114.

<sup>14</sup> M. Sułek, *Bezpieczeństwo narodowe jako kategoria, relacyjno-koncepcyjne metody badań*, [in:] P. Sienkiewicz, M. Marszałek, H. Świeboda (ed.), *Metodologia badań bezpieczeństwa narodowego...*, p. 39.

utilitarian purpose. The results should also be used for better shaping the security system.

The simplest model for research contains the objectives of each of the research work. This model can be in the easiest way presented by three questions: how was it? how it is? how can it be? In this model, the question, how it was, expresses the identification and explanation of the subject of research, the question, how it is, concerns the diagnosis of the subject of research, and the question is, how can it be, touches forecasting, or use the results of research to provide the best solutions for the future<sup>15</sup>.

From subjectively identified deficiencies (gaps, confusion) in the field of knowledge a research problem is born. Romuald Kolman stated that its wording is a factor in giving the beginning of real research, and defining of problem is one of the most difficult objectives. A research problem is defined as a research project, which should provide strict choice of knowledge, which, at the time of making the research, is incomplete or does not exist<sup>16</sup>.

Zygmunt Zimny stated that research problems require bringing specific questions. Well specified in the form of a particular research problem, questions determines and regulates the entire research process. The content of main questions is a major problem, which is further made more detailed in the form of the following questions, which are the problems detailed in the framework of this main issue. The content of questions determines specific methodological assumptions of the work. The research process is a search for the answer to the main question, which is the main problem of research by finding answers to detailed questions. Looking for answers to specific questions is carried out by applying a variety of methods, techniques and research tools<sup>17</sup>.

Basic questions to precise research problem are questions of explanation and heuristic properties of things, and the diagnostic questions about the things which are the subject of the research. In science there are also questions about explanation the reasons “why something is such as it is”, and in the end, the future of things’ state forecasts, at indicated terms, after given time<sup>18</sup>.

---

<sup>15</sup> B. Wiśniewski (ed.), *Bezpieczeństwo w teorii i badaniach naukowych...*, p. 126.

<sup>16</sup> R. Kolman, *Zdobycie wiedzy. Poradnik podnoszenia kwalifikacji (magisteria, doktoraty, habilitacje)*, Wyd. „Branta”, Gdańsk 2004, p. 146.

<sup>17</sup> Z. Zimny, *Metodologia badań społecznych...*, p. 156.

<sup>18</sup> *Ibidem*, p. 159.

According to M. Łobocki, any of the formulated problems has its scope. In general, two basic ranges are listed. The first one concerns the relationships between variables, and the second one – the properties, that is, the values of variables<sup>19</sup>.

It is essential that in formulating research problems certain criteria are met:

- the problem has put the relationship occurring between two or more variables,
- the problem has to be formulated clearly and unequivocally, in the form of a question, not a statement,
- the problem has to relate to variables that can be explored (measure), because without it, it loses a status of research problem<sup>20</sup>.

In scientific literature there are a lot of research problems classification based on the content of research questions. Many Polish authors dealing with methodological issues of scientific papers base on Stefan Nowak, the undisputed authority in this field, who proposes two categories of problems based on the content of the research questions. The first category constitute a cross-referring questions and dynamic properties of items, or events and processes, the extent to which these items are subject to. The second category of questions is about whether there are some relationship between the properties of research items<sup>21</sup>. As I have already mentioned, the research problem has to concern relations between variables. According to Waldemar Dutkiewicz, variables are the defined characteristics, properties of the object of research, which takes different forms. They are the details of researched phenomena made due to their characteristics<sup>22</sup>.

In the scientific literature functions the division of variables into two categories. Mieczysław Łobocki divides them into:

- independent variables that determine the nature of interactions in which is believed to cause specific changes – they affect the dependent variables,
- dependent variables are the actual or alleged effects of independent variables included in the studies, which are the results applied to interactions expected by the research.

---

<sup>19</sup> M. Łobocki, *Wprowadzenie do metodologii badań...*, p. 111.

<sup>20</sup> *Ibidem*, p. 126.

<sup>21</sup> S. Nowak, *Metodologia badań społecznych*, WN PWN, Warszawa 1985, p. 41.

<sup>22</sup> W. Dutkiewicz, *Podstawy metodologii badań do pracy magisterskiej i licencjackiej z pedagogiki*, Wyd. „Stachurski”, Kielce 2000, p. 61.



To test whether there are interactions between these two categories of variables, the indicators of variables are used. Indicators are the measurable characteristics or properties of the tested objects, phenomena and facts or factors that influence or impact that they entail<sup>23</sup>. Variables can be quantitative or qualitative. Quantitative variables represent the degree of intensity of certain phenomena and the differences which occur under the influence of specific factors, and qualitative variables show variations of a particular object, phenomenon, etc.

We should keep in mind, according to Bożena Chmielewska, that each system works on the principle of the organizational and functional groupings of its items. This means that the elements are connected with each other, so that changes of one item's characteristics cause the need to transform other elements, and sometimes the whole system<sup>24</sup>. This also applies to security systems, between which items various interactions take place.

Please note, however, that the interactions that occur between the independent variable and the dependent variable, especially in the field of security studies, are often affected by the intermediary elements, such as: applicable law, including the rules of procedure, the objective conditions of work and service (equipment, housing conditions), the institution's finances. We call these elements the intermediate variables that must be taken into account in the removal of applications with dependencies between variables<sup>25</sup>.

The statement of the research problems and the research goal allows to formulate draft hypotheses. Hypothesis is a statement only partly justified, a supposition of researcher ejected from the input data. "Hypothesis in general, is a theorem about the possible or expected nature of the relationship between the test objects, phenomena. The use of hypothesis allows to conclude the expected result of a relationship between variables, where one of the variables is therefore concerned an alleged or a driving determinant (independent variable), and the second – dependent variable – changes under the influence of this first. Variables are the subject of

---

<sup>23</sup> M. Łobocki, *Wprowadzenie do metodologii badań...*, p. 137, 146.

<sup>24</sup> B. Chmielewska, *Metodologia i metody badań społecznych ze szczególnym uwzględnieniem diagnozy*, Wyd. Wyższej Szkoły Pedagogicznej w Słupsku, Słupsk 1985, p. 33.

<sup>25</sup> M. Cieślarczyk (ed.), *Metody, techniki i narzędzia badawcze oraz elementy statystyki stosowane w pracach magisterskich i doktorskich*, Wyd. Akademii Obrony Narodowej, Warszawa 2006, p. 29.

our study, the relationships with other variables researcher wants to determine”<sup>26</sup>. The easiest way to say, quoting Bolesław Kuc, is that “hypothesis is a pre-statement, which should organize the researcher’s thought process around these problem questions”<sup>27</sup>.

The most common hypothesis presents itself in the form of expanded affirmative sentences, which in its content includes a thesis – guesses investigator. As a likely theorem, always requires empirical verification. After a documented verification a hypothesis becomes a thesis. The role of hypothesis is, therefore, the verification of theory but it should be mentioned that hypothesis does not need to be confirmed<sup>28</sup>. Hypothesis direct the main research problems undertaken by researcher. Sometimes they do it so effectively that can interfere the objectivity of our perception of reality. Keep in mind that in scientific research the confirmation of hypothesis is as justified as its negation. The latter situation does not reduce the quality of work, does not mean failure of researcher, just in opposite, gives a good testimony about the author<sup>29</sup>.

Mieczysław Łobocki states that the hypothesis has a close relationship with the previous experience of researcher in the particular field. Basically, hypothesis cannot be detached from professional or scholar experience of researcher. It requires not only a theoretical justification, but also references to own practice<sup>30</sup>.

According to B. R. Kuc, the role of science is to check and screen of guesswork and beliefs of researcher with systematically collected evidences. As a result, the role of faith, authority and intuition as the basis for convictions, is reduced. Bolesław Kuc, citing authorities in the field of methodologies, Thomas Henry Huxley among others, states that: “the saddest moment in science is the death of beautiful hypothesis, murdered by disgusting facts”<sup>31</sup>.

<sup>26</sup> J. Broda, A. Polewczyk, J. Rąb, *Podstawy metodologii nauk*, Wyd. Politechniki Śląskiej, Gliwice 2001, p. 133; see also: J. Brzeziński, *Metodologia badań psychologicznych*, WN PWN, Warszawa 1997, p. 189.

<sup>27</sup> B. R. Kuc, *Vademecum doktoranta. Obudź w sobie Einsteina*, Wyd. Menedżerskie PTM, Warszawa 2012, p. 63.

<sup>28</sup> M. Turek, A. Michalak, *Zasady i tryb przygotowania, przeprowadzania oraz finansowania przewodów doktorskich i habilitacyjnych...*, p. 55.

<sup>29</sup> M. Cieślarczyk (ed.), *Metody, techniki i narzędzia badawcze...*, p. 30.

<sup>30</sup> M. Łobocki, *Wprowadzenie do metodologii badań...*, p. 131.

<sup>31</sup> B.R. Kuc, *Funkcje nauki...*, p. 107.

In the scientific literature dealing with methodology, different ways of understanding the concept of “test method” are given. Polish authority in the field of methodology, S. Nowak, defines a method of empirical research as a specific, repeatable way to obtain some information about the fact, necessary to address a specific research problem<sup>32</sup>. Mieczysław Łobocki, based on the theory of Tadeusz Kotarbiński, stated that the method is a way of systematically applied action in particular case, with intention of applying it when of similar cases recurrence<sup>33</sup>. Zygmunt Zimny stated that the method is a structured way of acting, which is a targeted, planned, tried, controlled, considered to be the most effective and efficient way. Method is so general way of acting that it requires to be precised by numerous research techniques<sup>34</sup>. According to Czesław Cempel the scientific method is a rule of conduct, whereby we make choices of research techniques, the best measure of a reality unknown so far. To change this reality, to improve, we must first explore it<sup>35</sup>. According to Janusz Sztumski, the scientific method is expected to comply with the following conditions: appropriateness, clarity, effectiveness, reliability, thematic focus and economy<sup>36</sup>.

Speaking of security science research methods, it is worth noting that due to the logic course of research process, empirical and theoretical research are distinguished. Empirical and theoretical studies differ from, inter alia, used methods, techniques and tools. Regarding to the subject of research, which is the security, the practice, however, shows that in studies with this range mixed methods are often used, both empirical and theoretical. According to B. Wiśniewski, dealing with issues of security research, when choosing the scientific method, one should be guided by the following criteria:

- subject and purpose of research and nature of research problem,
- time and means that we can spend on research,
- knowledge of methods and possibilities of their use<sup>37</sup>.

<sup>32</sup> S. Nowak, *Metody badań socjologicznych*, PWN, Warszawa 1965, p. 13.

<sup>33</sup> M. Łobocki, *Wprowadzenie do metodologii badań...*, p. 225.

<sup>34</sup> Z. Zimny, *Metodologia badań społecznych...*, p. 231.

<sup>35</sup> C. Cempel, *Nowoczesne zagadnienia metodologii i filozofii badań. Wybrane zagadnienia dla studiów magisterskich, podyplomowych i doktoranckich. Poradnik*, Instytut Technologii Eksploatacji, Radom 2003, p. 14–15.

<sup>36</sup> J. Sztumski, *Wstęp do metod i technik badań społecznych*, Wyd. Naukowe „Śląsk”, Katowice 2005, p. 68.

<sup>37</sup> B. Wiśniewski (ed.), *Bezpieczeństwo w teorii i badaniach naukowych...*, p. 137.

When considering these recommendations, in part of research, two basic methods can be used: method of documents' analysis and diagnostic survey method, which use heuristic tools (expert and morphological). In the dictionary terms, heuristics is a skill to discover new truths by skillful putting hypotheses and searching and collecting data. Heuristic methods are used to solve problems through a structured and targeted effort of a group of people. They are often used in decision-making processes, in projecting and forecasting<sup>38</sup>. Within the meaning of heuristic methods, analogy and induction are used. Heuristic models are, for example, models of communication, interpretation and explanation of data. They help in visualizing the differences, agglomerates, diversity or homogeneity in the data. The construction of heuristic models – heuristic modeling – means that information processing model is described in terms of heuristics, which are the practical principles<sup>39</sup>. The most famous and recognized heuristic methods are: Delphi method and morphological analysis.

**Delphi method** – is based on detailed questionnaires addressed to eminent professionals from different areas of knowledge and on reconciliation of opinions. For the first time this method was presented and described by N. Dalkey and O. Helmer in 1963. The advantages of Delphi method: independence of expert advice, high level of objectivity of opinion, anonymity. We need to underline that the task of experts and prognostics should be to warn against the possibility of unexpected scenarios and changes that could reverse the current state<sup>40</sup>.

**Morphological analysis** – is a method of searching for many opportunities for presentation and description of problem, phenomena or attempt to sort out the system due to its ingredients. You can use this method to identify and calculate all the possible means of achieving the objective at any level of abstraction or aggregations. The task for morphological analysis is the study of features (construction) and characteristics of structure (internal build), the aim is the search for possible features of original compositions for use in modeling theory (stating hypotheses) and directly in the practical projecting and organisational activities<sup>41</sup>.

---

<sup>38</sup> M. Sułek, *Prognozowanie i symulacje międzynarodowe*, Warszawa 2010, p. 27.

<sup>39</sup> Por. J. Antoszewski, *Metody heurystyczne*, Warszawa 1990.

<sup>40</sup> J. Galtung, *What did the experts predict?*, "Futures" 2003, no 35, p. 123–124.

<sup>41</sup> Por. T. Krupa, *Formułowanie zadania projektowego morfologiczną metodą AIDA*, „Projektowanie i Systemy”, 1990, no XI, p. 45–46.

Morphological analysis is a method for rigorous structuring and searching for a complete set of relationships in nearly nonquantified complexes of research problems. This method is applied after separating a morphological space (of parameters) – complex of research problems to be considered. So the morphological analysis allows to describe the problem in a parametric and relational way, and its results may become a basis for generating objectified parallel scenarios of analysis results. So the essence of morphological analysis is not only to determine the different possibilities, but also to stimulate thought through the disclosure of “white spots” requiring research for if they, may be, offer a possible solution (capabilities).

Therefore, in the selection of research tools, one should be guided by the principle that selected methods and tools<sup>42</sup> as much as possible reflect the characteristics of subject of cognition. So the planned research procedure requires collecting large amounts of information. At the beginning the research techniques are undertaken with a low degree of standardisation. In research it is worth using the sounding method based on surveys and questionnaire survey. Another method of high degree of effectiveness is the expert interview, that allows to gather opinion among authorities in the particular area of knowledge.

According to M. Łobocki, the primary function of the diagnostic survey methods is to collect information about researched problems in the way of verbal responses given during the survey by the people called respondents. Constitutive feature of this method is questioning or opinion polling. It is used most often by means of surveys, as surveys, conversations or interviews, and these studies are her basic research techniques. It is used most often with the use of surveys, conversations or interviews, and these are its basic research techniques. This method promotes:

- formulation of research problems and conjectures,
- gathering opinions in various matters relevant from the point of view of the study,

---

<sup>42</sup> Due to the unequal way of clarifying the term:, tools, techniques and research methods in the scientific literature, author took the Russell L. Ackoff's interpretation (*Decyzje optymalne w badaniach stosowanych*, PWN, Warszawa 1969): research tool is a physical or conceptual instrument used in scientific research; research technique is a way to use research tools; research methods is a way to choose relevant research techniques.

- better knowing people surveyed in terms of their perception of issues that researcher is interested in<sup>43</sup>.

Within the framework of the heuristic method in research, a survey technique will be used. According to Earl Babbie, this technique is an alternative to the questionnaires completed individually by respondents in surveys. Researchers within this technique, rather than asking respondents to fill in the questionnaire, send pollsters who ask questions orally, and then write the answers of respondents. In the case of small surveyed population researchers may conduct interviews on their own. Filling in the questionnaire by interviewer and not by respondent, has several advantages. The study properly planned and carried out by pollsters will result in much higher levels of participation of respondents. In the interview technique, as opposed to survey, respondents have much greater resistance against pulling back the interviewer, than in the case they are proposed to fill in the survey by themselves. The presence of the interviewer reduces the number of “don’t know” and “no answer”. In case of giving low precise responses, interviewer can further question the interviewee. Interviewers are used as a protection against misunderstanding of questions. The interviewer can give appropriate explanations that provide the correct answer to the question. The interviewer may eventually not only ask questions, but also observe respondents’ reactions, which expand the knowledge of respondents, their approach to participate in the study<sup>44</sup>.

According to Stefan Ziemiński, technique of questioning assumes a intermediation of people running the interview. Interview is carried out especially when dealing with respondents who are experts in the particular field, having knowledge in a given subject. A prepared interview is a kind of formal interview, in which there is room for a lot of open questions<sup>45</sup>.

Stefan Nowak divides interview techniques into soft and hard interview. In a soft interview respondent is treated as an equal partner. During interview researchers presents flexibility, shared views and good atmosphere. The interview is a friendly conversation in a relaxed atmosphere, the interviewer – researcher tries to inspire confidence, gives the exami-

---

<sup>43</sup> M. Łobocki, *Wprowadzenie do metodologii badań pedagogicznych*, Oficyna Wydawnicza „Impuls”, Kraków 2007, p. 255.

<sup>44</sup> E. Babbie, *Podstawy badań społecznych*, W. Betkiewicz *et al.* (tłum.), WN PWN, Warszawa 2009, p. 300.

<sup>45</sup> S. Ziemiński, *Problemy dobrej diagnozy*, Wiedza Powszechna, Warszawa 1973, p. 68.

nations to respondent's doubts and asks further questions. Soft style favors larger, more full, sincere answers, makes it easier to answer difficult questions. The interviewer – researcher must, however, be very careful not to suggest answers. In interview, the interviewer provokes the respondent to give hard honest answers by frequent expression of doubt, the idea is to convince the respondent that speaking untrue words is inappropriate<sup>46</sup>.

Another practical division of this research technique is a structured interview, or formalized, and unstructured. In a structured interview interviewer asks respondents a series of previously constructed questions based on research issues, along with a limited set of categories of responses. It is in contrast to unstructured interviews, which may not have any ram and pre-prepared questions; in this case, it is a situation we meet that determines content of questions<sup>47</sup>.

A research tool used in the interview is an interview questionnaire. Interview questionnaires, as well as surveys, take the form of a printed form with given questions and free places to write responses or with ready answers, from which the studied person choose those considered to be true. Questions included in questionnaire and survey are of open or closed type. Open questions leave total freedom of response. Closed questions have some provided answers sets included, requiring only the choice of proper from the point of view of the respondent. In addition to open questions, semi-open are used in surveys, providing choice, among suggested answers, also 'other' own responses. It is recommended when preparing surveys that questionnaires included filtering questions, exempting from the study those who have nothing to say in the area researcher is interested on, and control questions to exclude persons giving deceiving answers<sup>48</sup>.

During the research it is worth using the survey techniques. The survey questionnaire should be anonymous, and the questions contained therein should be of close type. An important factor is a research group adequately chosen and large enough, which should be a representative sample for population.

---

<sup>46</sup> S. Nowak, *Metodologia badań socjologicznych. Zagadnienia ogólne*, PWN, Warszawa 1970, p. 65.

<sup>47</sup> N.K. Denzin, Y.S. Lincoln (ed.), K. Podemski (red. of Polish edition), *Metody badań jakościowych*, vol. 2, WN PWN, Warszawa 2009, p. 90.

<sup>48</sup> M. Łobocki, *Wprowadzenie do metodologii badań pedagogicznych*, Oficyna Wydawnicza „Impuls”, Kraków 2009, p. 243–244.

In addition, it is worth using the interview technique, which should be carried out with selected individuals, in public and openly. An interview questionnaire prefers open questions. Expert interviews should be carried out in a short period of time and involve more than five people associated with a particular subject, which is the subject of research.

Determination of the area of research, according to Tadeusz Pilch, is the next step of a methodological research preparation proceedings. By the area of research should be understood as not only a place but also a typology of characteristics and issues that need to be traced and tested on a specific area in their respective systems, groups, or social phenomena<sup>49</sup>.

Marian Cieślarczyk notes that the area of research must be defined already at the stage of preparing the concept of study. When choosing the area of research we take into account also the types and volume of research trials occurring there. For example, this may be institutions, universities, administrative areas, etc. The choice of research area determine at first all research problems taken in research. When projecting the area of research, types and volume of research samples, an important step is to define "information nodes", that is, the determination of places where you can find information about interesting topic<sup>50</sup>. The authors that consider methodology issues state, that the area and the range of tests should be chosen to ensure representativeness of results. This issue has far-reaching and difficult to overestimate importance of gaining an objective and error-free results.

As a result of considerations on the security studies carried out in the text, whose pedigree is relatively short (only four-year already), have very strong and developed methodological basis specific for this research area. Their competent and responsible application allows an analysis of various problems associated with both threats of war as well as those in non-military dimension. This, in turn, enables to obtain theoretical knowledge of essential phenomena in the area of security, allowing their understanding, and as a consequence, proper evaluation and interpretation that leads to create reliable forecasts. It is the carefully selected and applied methodological tools that make security studies an utilitarian scientific discipline. They allow to design optimal solutions that can be implemented flexibly, depending on dynamically changing internal and international situations.

---

<sup>49</sup> T. Pilch, *Zasady badań pedagogicznych*, Wyd. Akademickie „Żak”, Warszawa 1995, p. 178.

<sup>50</sup> M. Cieślarczyk (ed.) *Metody, techniki i narzędzia badawcze...*, p. 33.



## REFERENCES:

1. Antoszewski J., *Metody heurystyczne*, Warszawa 1990.
2. Babbie E., *Podstawy badań społecznych*, Betkiewicz W. et al. (transl.) WN PWN, Warszawa 2009.
3. Broda J., Polewczyk A., Rąb J., *Podstawy metodologii nauk*, Wyd. Politechniki Śląskiej, Gliwice 2001, p. 133.
4. Brzeziński J., *Metodologia badań psychologicznych*, WN PWN, Warszawa 1997.
5. Cempel C., *Nowoczesne zagadnienia metodologii i filozofii badań. Wybrane zagadnienia dla studiów magisterskich, podyplomowych i doktoranckich*, Poradnik, Instytut Technologii Eksploatacji, Radom 2003.
6. Chmielewska B., *Metodologia i metody badań społecznych ze szczególnym uwzględnieniem diagnozy*, Wyd. Wyższej Szkoły Pedagogicznej w Słupsku, Słupsk 1985.
7. Cieslarczyk M. (ed.), *Metody, techniki i narzędzia badawcze oraz elementy statystyki stosowane w pracach magisterskich i doktorskich*, Wyd. Akademii Obrony Narodowej, Warszawa 2006.
8. Denzin N. K., Lincoln Y. S. (ed.), Podemski K. (red. Polish transl.), *Metody badań jakościowych*, vol. 2, WN PWN, Warszawa 2009.
9. Dutkiewicz W., *Podstawy metodologii badań do pracy magisterskiej i licencjackiej z pedagogiki*, Wyd. „Stachurski”, Kielce 2000.
10. Galtung J., *What did the experts predict?*, “Futures” 2003, no 35.
11. Gierszewski J., *Firmy ochrony jako komercyjne organizacje odpowiedzialne za bezpieczeństwo innych podmiotów*, [in:] Grzybowski M. (ed.), *Logistyka – Komunikacja – Bezpieczeństwo. Wybrane problemy*, Gdynia 2009.
12. Kolman R., *Zdobywanie wiedzy. Poradnik podnoszenia kwalifikacji (magisteria, doktoraty, habilitacje)*, Wyd. „Branta”, Gdańsk 2004.
13. Krupa T., *Formułowanie zadania projektowego morfologiczną metodą AIDA*, „Projektowanie i Systemy” 1990, no XI.
14. Kuc B. R., *Funkcje nauki. Wstęp do metodologii. Nauka nie jest grą*, Wyd. PTM, Warszawa 2012.
15. Lisiecki M., *Nauki o bezpieczeństwie jako nowa dyscyplina naukowa*, [w:] Grochowski L., Letkiewicz A., Misiuk A. (ed.), *Nauka o bezpieczeństwie. Istota, przedmiot badań i kierunki rozwoju. Studia i materiały*, vol. 1, Wyd. WSPol, Szczytno 2011.
16. Łobocki M., *Wprowadzenie do metodologii badań pedagogicznych*, Oficyna Wydawnicza „Impuls”, Kraków 2009.

17. Maciejewski J., *Znaczenie badań akademickich w kontekście bezpieczeństwa transinstytucjonalnego*, [in:] Sienkiewicz P., Marszałek M., Świeboda H. (ed.), *Metodologia badań bezpieczeństwa narodowego. Bezpieczeństwo 2010*, vol. 1, Wyd. Akademii Obrony Narodowej, Warszawa 2010.
18. Misiuk A., *Administracja porządku i bezpieczeństwa publicznego. Zagadnienia prawno-ustrojowe*, Wyd. Akademickie i Profesjonalne, Warszawa 2008.
19. Nowak S., *Metodologia badań socjologicznych. Zagadnienia ogólne*, PWN, Warszawa 1970.
20. Nowak S., *Metodologia badań społecznych*, PWN, Warszawa 1985.
21. Pilch T., *Zasady badań pedagogicznych*, Wyd. Akademickie „Żak”, Warszawa 1995.
22. Sułek M., *Bezpieczeństwo narodowe jako kategoria, relacyjno-koncepcyjne metody badań*, [in:] Sienkiewicz P., Marszałek M., Świeboda H. (ed.), *Metodologia badań bezpieczeństwa narodowego, Bezpieczeństwo 2010*, vol. 1, Warszawa 2011.
23. Sułek M., *Prognozowanie i symulacje międzynarodowe*, Warszawa 2010.
24. Sztumski J., *Wstęp do metod i technik badań społecznych*, Wyd. Naukowe „Śląsk”, Katowice 2005.
25. Turek M., Michalak A., *Zasady i tryb przygotowania, przeprowadzania oraz finansowania przewodów doktorskich i habilitacyjnych*, Wyd. Politechniki Śląskiej, Gliwice 2009.
26. Wiśniewski B. (ed.), *Bezpieczeństwo w teorii i badaniach naukowych*, Wyd. WSPol, Szczytno 2011.
27. Ziemiński T., *Problemy dobrej diagnozy*, Wiedza Powszechna, Warszawa 1973.
28. Zimny Z., *Metodologia badań społecznych*, Wyd. Wyższej Szkoły Pedagogicznej w Częstochowie, Częstochowa 2000.

**Sources of law:**

1. Rozporządzenie ministra nauki i szkolnictwa wyższego z 8 sierpnia 2011 r. w sprawie obszarów wiedzy, dziedzin nauki i sztuki oraz dyscyplin naukowych i artystycznych, DzU z 2011 r., nr 179, poz. 1065.
2. Uchwała Centralnej Komisji do spraw Stopni i Tytułów z 28 stycznia 2011 r. zmieniającą uchwałę w sprawie określenia dziedzin nauki i dziedzin sztuki oraz dyscyplin naukowych i artystycznych, M.P. z 2011 r., nr 14, poz. 149.

**AUTHOR**

---

**Andrzej Czop** is a lecturer of Company Security, People and Property at University of Public and Individual Security APEIRON in Krakow. Previously he served as Commander-in-Chief of the Police in Krakow and Head of the Prevention Department in of the police in Krakow. Currently he also holds the position of Vice-President of the Polish Employers' Association "Protection", Branch of Malopolska.

---