

Danuta Szeligiewicz-Urban

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Danuta Szeligiewicz-Urban*

METHODOLOGICAL COHESION IN SOCIAL SCIENCE

INTRODUCTION

In an attempt to look at methodological issues, in particular the selection of research methods in social sciences and humanities, one must reflect on whether to distinguish the methodology of various disciplines of the social sciences, or a coherent methodology of science in this field. From the point of view of qualitative research, the selection of appropriate research topic seems important, as well as the very analysis. Here, all researchers make the choice according to the criteria on what is the value of the cognitive questions in accordance with the established theme of research. It becomes obvious that the proper selection of thesis topic is a researcher's indicator of what research questions to ask. This procedure makes it easier to determine what we want to explore and what research tools relevant to the research topic to apply.

At this point, it seems appropriate to cite the opinions of various authors dealing with methodology in humanities and social sciences, broadly defined. T. Nowacki (1979), the creator of work pedagogy and a specific methodological branch – the National Seminar of Pedagogy of Labor says, that the method of scientific research is not just any way of research that the researcher comes up with at a moment, but a thoughtful choice, tailored to the situation in which they intend to use it. K. Czarnecki (2009), who belongs to the group of psychologists, calls the research method a rational way of solving problems, which organizes and arranges the cognitive activity and is a system of thoughts, expressed by the scientific approach to problem solving. Other methodologists speak about scientific research in different ways. Thus shapes the nucleus view of the issue of methodology in social sciences, and these sciences undoubtedly include pedagogy, sociology and psychology.

* Wyższa Szkoła Humanitas w Sosnowcu.

THE DIFFERENCE OR SIMILARITY IN THE LOOK ON THE METHODOLOGY OF THE SOCIAL SCIENCES?

In applied research studies, there are informative, educational and research questions (Maszke, 2003). Information questions are questions that are directed to other people in order to obtain from them the data, which is not known to questioner. These questions are asked also by those who have doubts about the veracity of the data at their disposal. Didactic questions are questions directed at other people to check their knowledge and/or skills, or to bring them towards a problematic situation in the sense of teaching. This means that the questioners should know the correct answer to the question formulated by themselves while teaching. In contrast, research questions are the questions posed on the assumption that the answers were not yet granted, or, if they were already granted, they are not complete or they are incorrect.

It can be assumed that research questions show ignorance, which can be removed in the course of research. Reflecting on the purpose of the study, Z. Skorny indicates that research activities allow to gain knowledge about people and phenomena that have become the subject of research. The aim of the study may also be the description of an event, person or institution (Skorny, 1998, p. 67). T. Pilch states that the primary purpose of scientific knowledge is to learn up close, positively, simply and for the fullest possible information content (Pilch & Bauman, 2001, p. 23). There are three research goals: verification, theoretical elaboration and diagnosis (Pilch & Bauman, 2001, p. 20). We see here a convergence in the methodological perspective, as the reference to the completeness of information and simplicity of concerns is present in basically all views of the wide range of most prominent methodologists of the social sciences.

Following this line of thought, everyone mentions the assumption that one must first identify the special role played by the problems and hypotheses in the study. In the case of research problems, it can be said that after their formulation, all further proceedings of the researcher are subordinated to obtaining reasonable answers to the questions, which are the research problems. Therefore, the researcher assumes that the answers looked for may be formulated within the hypotheses. As a result, the total primary role of the research problems and hypotheses boils down to the fact that they define not only the direction and scope sought by the researcher, but also the appropriate ways to conduct research (e.g. the selection of methods and techniques of research and the research tools).

A special place is occupied by the statement that the research problems for any research should be these questions which deserve to be defined as scientific problems). J. Pieter presents the research problem as a set of questions to which we expect a response based on scientific research. Here, we must try to find the answer with our own efforts, and not by the expectation of a ready response from another researcher (Pieter, 1997, p. 67). In contrast, S. Nowak says simply, that the research problem

is any question or group of questions to which the answer is provided by the study results (Nowak, 2007, p. 214).

The research problem takes the form of question and is the basis for formulating the hypotheses, and therefore broadens the scope of our ignorance. So the research problem determines the area of research for exploration. To a large extent it actually determines the selection of appropriate techniques and tools which we shall use to solve it (Łobocki, 1999, p. 109). In addition, research problems should be formulated in a transparent, understandable and yet comprehensive way (Łobocki, 2000, p. 22). This is another convergence in evaluating forming of hypotheses within social sciences.

Analysis of the location of the research problem against the background of current scientific developments allows to specify whether the ignorance contained within the question is subjective or objective. This issue was raised in earlier studies, emphasizing the important role of objectivity in these studies, which comes to the forefront of the moral aspects of educational research (Szeligiewicz-Urban, 2008, p. 224). The above analysis, however, meets also a number of other tasks. It allows to:

- clarify the scope of ignorance;
- determine whether there are any already solved problems related, and if so, based on what theory answers to these problems were sought;
- obtain the information about the ways which resolved related problems;
- obtain the information about the tools used to solve them;
- to respond to the demands on the subject matter, which were formulated by other researchers.

It is easy to see that the conclusions of the above analysis can be useful to the researcher, not only in the problem-formulation phase of the research, but also in the subsequent research phases.

Many methodologists indicate that development is not just about adding new components to the knowledge already functioning, but is also eliminating these theses, which proved to be false and replacing them with new claims. Often, the explanation of the same phenomenon may utilize two or more theories. Thanks to this, another requirement for the hypotheses may be satisfied. It may be summarized by the following statement: hypothesis should be anchored clearly in the ground of a particular theory. There is no doubt about this issue, methodologists agree that the hypothesis should be closely linked to a particular theory. W. Zaczyński says that confronting a working hypothesis with the claims system may be called an internal verification of the hypothesis (Zaczyński, 1997, p. 63). M. Łobocki, on the other hand, says that properly formulated hypotheses are expected to be requested from previous observations and experience of the researcher (Łobocki, 2000, p. 26).

RESEARCH PROBLEM CRITERIA

An important criterion of the correctness of the formulated problem is its empirical verifiability. It seems obvious that this criterion applies to the problems of empirical reality or a certain segment of it. About a problem we say that it is empirically verifiable when, based on empirical data, it is possible to positively state the truth or falsity of the answer to the research question (Maszke, 2003, p. 61).

To indicate the existence of this possibility in a likely manner, necessary is the knowledge of the facts, events, phenomena and relationships and an understanding of what processes should be made the subject of the cognitive activities, so as to obtain the data, which prerequisites the verification of the hypothesis.

It is generally accepted that the hypothesis is empirically verifiable when “its confirmation or refutation can be done with empirical data” (Maszke, 2003, p. 65). Therefore, to ensure that the researcher can decide whether formulated hypothesis is empirically verifiable, they must determine what information should be collected in order to proceed with the study. With this in mind, W. Zaczyński unequivocally states that the hypothesis should be possible to verify by the consequences that derive from it (Zaczyński, 1997, p. 62).

Speaking of practical verifiability of the hypothesis we actually mean whether currently science has a set of recognized methods and appropriate tools necessary to gather the empirical data necessary to verify the formulated hypothesis. Basic criteria proposed by M. Łobocki in this topic include (Łobocki, 1999, p. 180):

- the accuracy of recognition of the problem and hypotheses;
- location on the background of existing scientific achievements;
- empirical verifiability of the problem;

In the case of some questions, namely those which only complement a specific fragment of the wider question or hypothesis, the precision of the approach to the problem is inherited. For example, hypotheses appropriate for questions that contain the phrase “the extent to which” inherit the precision of a general level. Still, they do not inherit the precision in the approach the problem in focus, namely determining the degree of whatever is tested. Therefore, this part of the hypothesis requires separate procedures to ensure getting sufficient precision in the study formulation. In this case, one must consciously choose the most appropriate scale for the analysis of the research problem.

Given the practical nature of pedagogy, methodologists often point to a further criterion for the correctness of the formulation of the research problem. This criterion is the practical value (Pilch & Bauman, 2001, p. 44). In this case, solution to the problem should be measurable in terms of the practical benefits. This practical value is crucial also to other researchers within the broadly defined field of social sciences. It has an important role and adds value.

Referring to the issues of practical application of research tools, we can conclude that the above teachings apply a uniform model of reference and involvement into the research process. It is a question not so much of the point of view, but that of a thorough approach to the research process, which starts from the basic dilemma that arises already at school.

A specific example of the researcher-pedagogist is the teacher. Does this call, therefore, for a re-evaluation, which must start with the teachers and be followed by their attempts to try and change the students? Or does it impose a different path? Good teacher is the one who engages in the pedagogical impact, yielding satisfactory results (Włodarski, 1992, p. 126). The teacher should be all: an educator, tutor and organizer, but only some of us are or may be masters of their profession. N.W. Kuźmina proposes the following model of mutual respective structural and functional elements of the educational system:

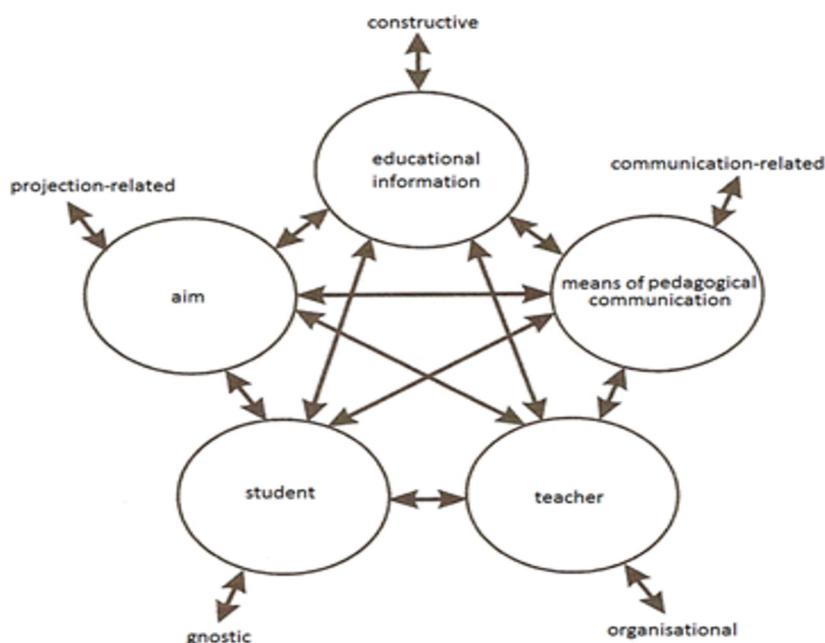


Figure 1. Model of Mutual Association of Structural and Functional Elements of the Teaching System

Source: Kopsztej, Szeligiewicz -Urban & Szlosek (2009, p. 162).

Such model assumes the multiplicity and complexity of the structures of teaching and versatility of this process, and thus requires the teacher to be multilateral. There are professions, where the guiding principle is to give the right example via personality. Teaching is such an occupation – is not only a profession, but a vocation. It is the teacher who has to develop personality so that others can learn from his or her knowledge and skills. This, nevertheless, may be a somewhat ideal picture of

a teacher. In today's world, the need for the teacher-master is very large, yet we cannot forget that the evolution towards mastery involves some changes in the perception of the role of values. As indicated by the author of the said position, attitude towards learning should become apparent from the professed ethical values and philosophy of life. These standards relate to the values shared by almost all humanists.

All research, related to the different categories of science, has the main aim of freedom and responsibility – this a common feature of research in various disciplines. But in science, as a human activity, in addition to the cognitive process, the choice of methods and forms of use of knowledge gained is assumed, and these are all subject to moral evaluation. The same criteria in this respect are, therefore, representatives of various social science disciplines, regardless of whether carried by an educator, sociologist or psychologist, or even an economist. Scientific knowledge is essentially a dynamic ability to combine, modify, and use thoughts and ideas. Wisdom is knowledge, the use of which depends on the values, ethical principles and good education (Wiatrowski, 2008).

Intentions of the researcher, his or her relationship to reality, the measures taken and, above all, the objectives, are all certainly the scientific factors that determine the ethical side of each individual accomplishment. Freedom of research is in this context a prerequisite for the creative and authentic practicing of science. Meanwhile, the lack of this freedom does not allow to assess the value of the research itself and its consequences in the right light (Kopsztein, 2011, p. 135).

THE RESEARCH TOOLS IN NOT-ONLY-PEDAGOGICAL SCIENCES

All researchers, including the academics, should demonstrate in their assessment various universal traits, such as objectivity, independence and disinterestedness, but also should have a certain amount of criticism. This feature is extremely important in formulating the conclusions of the study or in the selection of research tools and study construction.

In the process of research, regardless of discipline, the focus should be on the selection of appropriate research tools. From this point of view, an interesting solution, giving large analytical capabilities, it is to use the analysis of the results of qualitative studies, equally with statistical indicators (Szeligiewicz-Urban, 2011, p. 493), such as various means or deviations and confidence intervals.

Analysis of the results of studies using the arithmetic means and standard deviations, allows for uncomplicated estimation of relationships between variables, which cannot be said about the use of correlation, especially in the case of non-linear correlation. Helpful are also the methods of regression analysis. Having determined the average at intervals (for example, age) and standard deviation, one can get the information about the strength and type of correlations, regardless of it being linear

or non-linear. Given the results on the characteristics of the population of a given interval (e.g. age) and having at disposal values of the average and standard deviation of these intervals, one can then easily obtain a correlation between the areas of the examined variables. This type of analysis is particularly useful when one of the variables is not specified numerically (for example, level of education or a disability group). In such cases, it seems reasonable to use the regression analysis of the qualitative data, which is based on ranking methods.

Regardless of the final selection of tools, we should keep in mind, that in the literature, it is repeatedly emphasized how important the conscious choice of the method and the tool is, so that they are compatible with the subsequent analysis of the study results.

CONCLUDING REMARKS

Taking up any scientific activity, it is good to have an answer to the question what are the ways and mechanisms for doing science and whether those aspects are the same in all sciences. It is worth to wonder about the number of questions that are conducive to achieving the goal of solving research problems.

The conclusions about what science is and how it should be carried have their source in the natural sciences concerned with the material reality, but they may be used as well in humanities and social sciences. This is so because the transfer of methodological patterns from natural sciences to the humanities is possible. Looking at the methodology from the perspective of the compilation of research, it can be concluded that the methodology itself is an uncompromising science. However,

thanks to it, each area of research can find its dimension evaluation, its theoretical carcass of phenomena and processes, so important in science and the knowledge of the modern man (Grzyb, 2013, p. 70).

In literature on science and philosophy one may find the say that methodology is nothing, but just a set of rules that are to help model real phenomena of nature:

The reality of nature, as we believe, is characterized by a relatively fixed relationship between the objects of this reality, and so, formulated theories relate to objects actually independent of them. These theories are fruitful, have unquestionable practical applications and affect the social reality significantly. It can, therefore, be said that although theories of natural history are changing the practice, it is not a practice about which theory teaches (Sikora, 2003, p. 145).

Referring in conclusion to the main focus, and the question raised: can we speak of a common methodology across disciplines belonging to the social sciences? let us submit to the readers' judgment of all the examples cited, differences and similarities discussed in the given disciplines and remain in the hope that they will be a contri-

bution to further discussion, and finally to defining an explicit position of scholars in this regard.

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Keywords: social science, research tools, qualitative research

Abstract: In the article the author reveals some consistent view of the methodology of social research, taking into account the specificities of its disciplines. She emphasizes that the selection of the theme of work is extremely important from the point of view of qualitative research. The research procedures require us to select a rational way of solving problems. The validity of the criteria of the formulated problems, among them the practical value, is indicated by a number of methodologists in various subdisciplines of social sciences and humanities. In the article the author tries to answer the question whether, because of the similarity of the tools used, methods and research techniques applied, should we create a common, consistent methodology of social sciences.

DYLEMATY METODOLOGICZNE – SPÓJNOŚĆ METODOLOGICZNA NAUK SPOŁECZNYCH

Słowa kluczowe: nauki społeczne, narzędzia badawcze, badania jakościowe

Streszczenie: W artykule autorka wskazuje na pewne spójne spojrzenie na metodologię badań społecznych, uwzględniając specyfikę poszczególnych jej dyscyplin. Podkreśla, iż dobór tematu pracy jest niezmiernie istotny z punktu widzenia badań jakościowych. W procedurze badań wybieramy racjonalną drogę rozwiązywania problemów. Na ważność kryteriów sformułowanego problemu, a wśród nich wartość praktyczną, wskazuje wielu metodologów różnych subdyscyplin nauk społecznych i humanistycznych. W artykule autorka próbuje odpowiedzieć na pytanie, czy ze względu na podobieństwo stosowanych narzędzi, metod czy technik badawczych nie należałoby stworzyć wspólnej, spójnej metodologii nauk społecznych.