METHODOLOGICAL IMPLICATIONS OF QUALITATIVE TESTS IN THE SCOPE OF HISTORY OF ECOLOGICAL EDUCATION

METODOLOGICZNE IMPLIKACJE BADAŃ JAKOŚCIOWYCH W ZAKRESIE HISTORII EDUKACJI EKOLOGICZNEJ

Streszczenie: Celem artykułu jest przedstawienie tematyki metodologicznych implikacji badań jakościowych (interpretatywnych / rozumiejących) w zakresie historii edukacji ekologicznej. W artykule wyjaśniono pojęcie kultura, zaprezentowano metodę badań jakościowych: hermeneutykę, wymieniono/określono założenia podstaw tradycji hermeneutyckiej w kulturze europejskiej, zaprezentowano także zarys przeglądu kluczowych pojęć, które należy rozumieć w procesie realizowania badań naukowych w obszarze edukacji ekologicznej. Artykuł ma strukturę rzeźbową (układ problemowy), składa się z trzech części oraz konkluzji.

Słowa kluczowe: metodologia badań humanistycznych, metodologia jakościowych badań społecznych, tradycja hermeneutycką, hermeneutyka, historia edukacji ekologicznej

Abstract: The purpose of this article is to present the subject of methodological implications of qualitative (interpretative / understanding) research in the scope of the history of ecological education. This article explains the idea of culture. It presents the method of qualitative research: hermeneutics, the foundations of the hermeneutic tradition in European culture is listed / defined here, and a review of key concepts that should be understood in the process of carrying out scientific research in the field of environmental education. It has a substantial structure (issue layout) and consists of three parts and a conclusion.

Keywords: humanities research methodology, qualitative social research methodology, hermeneutic tradition, hermeneutics, history of ecological education

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Nature as the subject of social culture

The idea of culture initially referred to growing land\(^2\), it was the opposite to nature (the system imposed by a human being against natural phenomena) and then in the sense of a perfection of the mind\(^3\). Marcus Tullius Cicero called philosophy the culture of the spirit and thus in the first century BC he introduced the term culture to the field of the humanities (enobling the spiritual life). Joachim Lelewel, in his Lectures on Universal History (1822–1824), explained that culture includes religion, morality, customs, social organization, physical and mental work, science and art. Culture is understood as a collection of community goods that become concrete in a specific place, space and time (compare: Turlejska 2004, p. 157-163). It is „everything that a human being added to nature“ (Topolski 1998, p. 87). According to Jerzy Kmita, the products of culture are human actions and their results (technical, usable and symbolic) (compare: Kmita 1995, p. 270-271).

In scientific terminology, there are definitions of culture: anthropological\(^4\), philosophical\(^5\), sociological\(^6\), psychological\(^7\), historical\(^8\). It may be generalized that culture is a group of collective human products, specific for a certain social group in terms of spiritual and material goods (compare: Lam 1928, p. 190). According to Hartmund Martin Griese, culture „(and the society along with it) is a historically achieved product of human action – man is a historical product of culture and socialization“ (Griese 2002, p. 13). Referring to the creative reflection of Arnold Gehle, he emphasized that man is a cultural being and culture is the second human nature (compare: ibidem, p. 8). Most of the culture (its symbolism) is the work of previous generations (compare: Kroener 2022, p. 26-29). Culture is therefore a kind of a „hermeneutic key“ to understanding the meaning of human life.

Nature is an important subject of social culture, which, as Jacek Kolbuszewski put it, came out of nature and was born from contact with it (compare: Kolbuszewski 1992, p. 9-10). In his opinion, all ways of experiencing nature and its activities are facts of culture, and the attitude of society to nature and the forms of its protection are a measure of the culture in a given society (compare: ibidem, p. 20, 46).

Historical time is the time in which every culture „sees itself“ (compare: Symiotiuk 1983, p. 22). Evolutionary nature means that each developmental stage

\(^2\) Cultura agri (Latin) – agriculture.
\(^3\) Cultura animi (Latin) – perfection of the mind and the soul.
\(^4\) Anthropological definitions describe culture as all human products and activities.
\(^5\) Philosophical definitions define culture as a supra-individual reality of thought.
\(^6\) Sociological definitions capture culture in terms of patterns of interaction between individuals and groups.
\(^7\) Psychological definitions explain the interplay between personality and culture.
is a genetic result of the previous phases and includes both positive and negative elements (compare: Handelsman 1928, p. 233). However, in the methodological reflection, the value and role of historical sources (compare: Szulakiewicz 2003, p. 8) are constantly being assessed in scientific research. Florian Znaniecki presented the concept of an educating society using the method of interpretation, the „humanistic coefficient” and recognized that cultural tradition is the basis for creating goals and values (compare: Znaniecki 2008, p. 67-70). Not only new facts are discovered, new theories are constructed, but also the methods of constructing theories are subject to evolution (compare: ibidem, p. 29).

Hermeneutics as a method of scientific research

Hermeneutics has an important role in the European culture. The structure of reality in the hermeneutic tradition is a symbolic one (a symbol is a carrier of sense and meaning). The aim of science in the hermeneutic tradition is to interpret and understand the sense and meaning of the phenomena expressed in a symbolic form (a symbol represents the values that give meaning to human life). In the development of hermeneutics the following stages were distinguished as a reflection on human reality: ancient hermeneutics (mystical, inspired), the stage of pre-modern hermeneutics (related to the interpretation of the Scripture, with the life of Jesus Christ), the stage of modern hermeneutics (initiated by Martin Luther, continued by Rene Descartes and later in the romantic hermeneutics by F.E.D. Schleiermacher, in the epistemology of understanding by W. Dilthey), the stage of postmodern hermeneutics (initiated by the Copernican breakthrough in modern hermeneutics, then by M. Heidegger, H.G. Gadamer etc.) (Gnitecki 2006, p. 34-35). The following assumptions were made on the basis of the hermeneutic tradition:

- understanding is the fundamental hermeneutic category,
- understanding is realized in language and has a symbolic character,
- language is the kind of being that can be recognized in the process of understanding,
- the interpretation of a spoken or written text is related to the linguistic comprehension process,
- understanding and interpretation are two complementary elements of the hermeneutic experience,
- the process of understanding consists in constantly finding new meanings or searching for existing meanings.

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the structure of the understanding process is superstitious (understanding is preceded by a superstition, a certain initial finding, given to the interpreter intuitively),
the course of the understanding process in hermeneutics is circular (the entirety is understood in the detailed parts, and vice versa, on the basis of the detailed parts, we infer the entirety. This is the rule of the hermeneutic circle),
understanding has a historical dimension,
human existence has its basis in language,
when speaking about symbolic communication, we mean spoken and written language, as well as any other symbolic language,
language as a tool of symbolic communication has a hermeneutic function, because the symbol contains content (meaning) and sense (value),
all interpretation, i.e., hermeneutic interpretation, is embedded in the content (meaning) and value (sense) of the category of symbolic forms (ibidem, p. 36-37).
Hermeneutics\footnote{In ancient Greece, the term hermeneus referred to the structure of human life in the sense that the hermeneut (mediator between gods and people, Hermes as hermeneus was the messenger of the gods) created ways of symbolically communicating with people, translating divine ideas into content understandable to people. The term hermeneutics thus meant explaining, translating, lecturing, and the art of explaining ideas. Hermeneutics can be understood as a theory of interpretation and understanding of spoken and written text (Friedrich Schleiermacher), humanistic / anti-naturalistic methodology based on the category of understanding (Wilhelm Dilthey), ontology of understanding (Martin Heidegger), philosophy of understanding the hermeneutic situation (Hans Georg Gadamer), theory of communication (Jurgen Habermas). Compare: Gnitecki J. (2021). Geneza pedagogiki hermeneutycznej, in: „Dydaktyka Literatury XIII”, Wyższa Szkoła Pedagogiczna im. Tadeusza Kotarbińskiego w Zielonej Górze, p. 7, 10-11.} understood as the art of interpreting, understanding, explaining the sense and meaning of a given symbol, is therefore one of the oldest skills related to the history of human life. Symbols concern the content of life, in the process of which various ways of symbolic communication are formed, symbolic representations are created, reduced to the category of a sign (its sense and meaning go beyond the category of a sign). A symbolic expression is a result of social inheritance. Symbols are related to the context of social existence in a specific circle of culture. The symbol is characterized by ambiguity, indeterminacy as a carrier of meaning, and its inseparable element is its mystery, especially when it comes to unconventional symbols related to internal experience, with imagining the concepts (Kopaliński 2001, p. 5; compare: Leksykon symboli 1992, p. 5).

The term hermeneutics has become valid in modern culture as a general theory of interpretation, of understanding the categories of symbolic forms that make up the content of human life. Each historical epoch was characterized by a specific interpretation of the category of symbolic forms, with the general
tendency of a given historical period\textsuperscript{11}. On the other hand, in the post-modern/post-industrial culture (the culture of the knowledge society), due to the very rapid technological development of high interactive culture (homo interneticus) at the turn of the 20th/21st century, a cybernetic-technocratic civilization was formed. It contributed to a significant reduction in the category of symbolic forms, which were replaced by a code (i.e., unique sign).

Hermeneutics understood as a general theory of interpretation and understanding of a text (spoken, written) is the most common concept of hermeneutics in philological literature (it refers to the original meaning of this concept). Hermeneutics as an epistemology or a methodology of understanding in the concept of Wilhelm Dilthey (1833-1911) is an understanding methodology (which Dilthey contrasted with the methodology of natural sciences). Dilthey concluded that the natural sciences explain reality, and the humanities attempt to understand human reality „through the expression of the human spirit” (Gnitecki 2021, p. 7, 13). Historical hermeneutics (in the interpretation of, for example, biblical, philological, legal) belongs to specific hermeneutics, which plays a significant role in the process of creating a general and detailed theory of interpretation. Pedagogical hermeneutics implies categories of symbolic forms. It is a detailed theory of interpretation and understanding of the category of symbolic forms in the field of education and upbringing (intentional and unintentional activities) (compare: ibidem, p. 19-21). Education is a process of symbolic interaction. While studying the theory of education, the researcher (by understanding) enriches the content with his own subjectivity in connection with the effort of understanding in the process of hermeneutic reconstruction (Śliwerski 2005, p. 24-25). Bogusław Milerski noted that in the German tradition the term „hermeneutic pedagogy” was introduced into the scientific discourse only in the 1950s, whereas the concept of „pedagogical hermeneutics” in the 1970s (Milerski 2021, p. 48).

Human understanding of sense and meaning is a way of getting to know the world. The key to hermeneutic activity is understanding. The meaning, on the other hand, is contained in human expression (e.g., a poem, a novel, a piece of music or in a given situation) in which the recipient attempts to interpret the work. Hermeneutics is therefore a kind of „conversation with the text” (compare: Adamska-Staroń, Łukasik 2012, p. 131-132). According to Wilhelm Dilthey, hermeneutics has become one of the basic methods in the humanities (understanding) of spiritual life (moral, related to conscience, customs, lifestyle, upbringing, etc.), which in his conception should be understood (and not explained, as in natural/explanatory sciences) (Nowak 1993, p. 50). The process of education and upbringing is an expression of spiritual life and can be read, understated in the hermeneutic method (compare: ibidem, p. 51). At the same time, „to understand” means to grasp the meaning.

\textsuperscript{11} The symbol consists of a „visible” part (which is a signal with a specific content) and an „invisible” part (the meaning of which must be read). See: ibidem.
the sense of individual signs perceived by the senses (ibidem). In hermeneutics, it is important to understand the context of a symbol located in a given place, space and time. Hermeneutic pedagogy is based on the understanding of man, who, as a symbolic being, expresses the content of his life through a symbol (hermeneutic understanding is connected with human experience, it is necessary for understanding it) (Lysek 1996, p. 19).

A symbol, as a philosophical, cultural, psychological and theological category is the key to getting to know the aspects of human existence (see: Ratajczak-Parzyńska 2020, p. 87). In its nature, it is ambiguous and in this sense it provokes interpretation (ibidem, p. 98). A symbol is a sign in which the relationship of the signifier and the signified is essentially arbitrary and based on a convention. There have been distinguished conventional symbols (e.g. letters, numbers), analogizing symbols (when the relationship between the signifier and the signified results from actual similarities and analogies, e.g. a yellow leaf symbolizing old age), archetypal symbols (when the relationship between the signifier and the signified reflects the regularities of life on Earth and evolution of the human species, e.g. the sun, through its life-giving power, symbolizes the ruler). Man (animal symbolicum / "symbolic animal") understands the world and his place in it through symbolic forms (language, myths, religion, art) (Symbol 2006, p. 206).

Emilio Betti, considering hermeneutics in the context of the general methodology of the humanities, stated that the purpose of interpretation is understanding, and historical understanding is a kind of mediation between the past and the present (Betti 2015, p. 26-54). Historical thinking is a necessary medium through which values are actualized (Kuczera-Chachulska 2017, p. 8). In the high interactive culture of the 21st century, various interpretations of social thought arise, which fit into the hermeneutics of the continuity of tradition, the hermeneutics of breaking with tradition, and the hermeneutics of rejecting the same (see: Wielomski 2020, p. 61-65). On the other hand, according to Friedrich W. Kron, the practice of interpreting texts is characterized by three structural features: the hermeneutic circle (in the spiral system of preliminary understanding – text interpretation, extended preliminary understanding – extended text interpretation, etc.), hermeneutic differentiation (at the beginning of a hermeneutic initial and the meaning of the text given by the author or the understanding to which the interpreter must get) and a hermeneutic set of rules (from the formulation of the interest that directs the cognition to the formulation of the conclusions of cognition) (Kron 2011, p. 346-352).

As already mentioned, Wilhelm Dilthey was an ambassador for qualitative research and hermeneutic understanding. He assumed that human life (the essence of humanity) can be known primarily through history and culture (compare: Sztobryn 2006, p. 75). In his opinion, the humanities as a work of the human spirit and as the value of understanding culture cannot use the same research methods as natural sciences. W. Dilthey together with Heinrich Rickert found
that in the sphere of human life there are symbols, values and meanings that are not found in nature. On this basis, Max Weber postulated an anti-positivist – humanistic method of understanding social phenomena (close to the concept of the „humanistic coefficient”).

Understanding concepts in the research process in the history of environmental education

Before the author of this article presents the basic concepts (education, environment, ecological education, ecological awareness), the understanding of which is crucial in carrying out scientific research in the field of ecological education, she would like to remind you that according to Stanisław Palka, cognitive activity is valuable in the field of quantitative and qualitative research (compare: Palka 2010, p. 23), taking into account the research attitudes presented by Teresa Bauman as follows: adaptive, emancipatory, hermeneutic (compare: Bauman 2006, p. 193-200). Since historical culture functions as an orientation in time and space and is indispensable for understanding the „present”, the whole social culture (compare: Biała Księga… 1997, p. 29), determining the roots of social identity, it can be emphasized once again that historical research is justified in order to construct a narrative image of the past (creating its narrative structures) and what Bogusław Śliwerski emphasized reading „whether the existing paradigms, trends and directions contained in the source texts are ideal beings” (Śliwerski 2007, p. 52).

Julian Dybiec also stated that „if pedagogy as a science is to serve educational practice, solve the most important problems of contemporary education, and not plunge into complete abstraction, it must refer to history and historicism as a cognitive method” (Dybiec 2006, p. 73).

In Józef Pieter’s view, the scientific method can be understood firstly – as a whole of research methods of reaching the truth and conceptual presentation of the recognized truth; secondly – as methods of obtaining scientific material. The scientific method is „a set of appropriate ways of performing scientific research, leading to the goal, that is, a model of writing them. It also leads to a critical evaluation” (Pieter 1960, p. 38-39). Benon Miśkiewicz described the research method as „the principles and methods of systematic inquiry in order to know the objective reality” (Miśkiewicz 1993, p. 165). He explained that the monograph is “mostly analytical work. It usually gives an exhaustive description of one selected issue, through a comprehensive critique of literature and sources and their interpretation” (ibidem, p. 114).

Considering the subject of this article, the analysis of the concepts constituting the methodological basis of scientific research in the field of historical aspects of environmental education began with the concept of upbringing.

Broadly understood upbringing is carried out on the foundation of values and cultural competences obtained through enculturation. Education is a social and
multifactorial process that lasts throughout life. According to the philosopher, an eminent representative of humanistic sociology, Florian Znaniecki, education concerns activities performed by people with the intention of inhibiting or modifying certain activities of other people, and therefore it is a social activity aimed at influencing human behavior. The purpose of education is to shape the social personality (compare: Znaniecki 2001, p. 3). Stefan Kunowski understands upbringing as „a socially recognized system of the older generations influencing the adolescents, in order to guide their comprehensive development to prepare according to a specific ideal of a new man” (Kunowski 1993, p. 170). In this approach, the upbringing process implies deliberate influence of educators (mentally mature people), primarily on children and adolescents (compare: ibidem, p. 19). In broad terms, upbringing covers all interactions that co-create the individual personality (compare: Nowak 2008, p. 189) of a person, while in a narrower sense it concerns interactions undertaken for a specific goal and situation (compare: ibidem, p. 190, 191).

Piotr Petrykowski explains that upbringing is closely related to shaping, because the intentional interaction aimed at shaping / modifying / developing personality is directed at the educational ideal adopted in a given society (compare: Petrykowski 2003, p. 40).

The process of education takes place in the social and natural environment. The close relationship between upbringing and the environment should be emphasized. The environment is a conceptual category, both in the field of humanities, social sciences and ecology. An outstanding philosopher, representative of pedagogical progressivism, John Dewey, while analyzing the influence of various factors on human development, assumed the social and natural environment should be taken into account. The environment is made up of all factors (nature, things, processes, events) that have an impact on a given object and / or are influenced by it (compare: Słownik terminologiczny... 1979, p. 112). According to Danuta Cichy, the environment is „a system of natural, economic, social and cultural relations in which man lives” (Cichy 2007, p. 9). In the concept of a humanist sociologist Florian Znaniecki, the environment should be interpreted in the category of the environment of a given individual, i.e. a unique one created by individuals, social groups (compare: Znaniecki 2008, p. 68), with which the „social individual” comes into contact (privately, publicly, directly, indirectly, fleetingly, permanently, personally, to the point) in the process of one’s life.

Stanisław Jaromír pointed out that the term natural environment covers only the environment not transformed by humans or transformed to a small extent. But since there are few such areas on a global scale, the term refers to the totality of biotic and abiotic factors that are either positively or negatively transformed and constitute the world of human life. The natural environment of man is the civilization created by him (compare: Jaromír 2005, p. 113).
Danuta Cichy writes that ecological education is described interchangeably as environmental education and “these are all pedagogical actions and processes, which enable people to orientate in the surrounding nature and influence their relationship to the surrounding environment” (Cichy 2003, p. 910). According to Ligia Tuszyńska ecological education “(environmental education) is the concept of educating in the spirit of respect for the environment and shaping the views of the society towards the surrounding nature. It also refers to stimulating the sensitivity towards environmental problems, searching and foreseeing the effects of phenomena leading to degradation of natural environment [...] ecological education prepares the society to a reasonable use of nature, aiming at a contact with a clean nature and the feeling of liability for the natural environment” (Tuszyńska 2006, p. 5).

Ecological education is connected with the concept of balanced development, which never interrupts irreversibly with the ecospheres of life, permanent cultural values (Cichy 2000a, p. 13; compare: Cichy 2000b, s. 143), to keep the balance between the needs of the current generation and future ones (compare: Sobczyk 2000, p. 15). Sustainable development as a social problem is included in many aspects of human existence: environmental, technological, economic and social (compare: Wieczorek 1998, p. 259; compare: Wieczorek 1999, p. 10). The way to permanent and sustainable development, living in harmony with the natural laws of nature is education, and its goal is the subjective development of conscious, co-decision and compassionate beings (compare: Michnowski 1998, p. 234). Ecological culture is created by: knowledge about the natural environment, noticing the complexity of natural phenomena with their rules and interdependencies, readiness to adopt particular behaviors in relation to the natural environment, ability to think openly and creatively to condition the susceptibility towards the increase of ecological safety (compare: Cichy 1988, p. 283; compare: Frątczak 1995, p. 20).

In the process of ecological education, ecological awareness and attitudes of caring towards the living environment are shaped / developed. Social (universal) ecological awareness is formed (long-term process) in three stages: the stage of common ecological awareness, the stage of ideological awareness based on knowledge (extreme views), the stage of universal ecological awareness (compare: Sobczyk 2000, p. 19). Ecological awareness is an implication of social awareness (all the ideas that are the product of the culture of generations, universally recognized values, views and beliefs) (compare: Sasinowski 1997, p. 110). It is the state of knowledge, views and perceptions of people about the natural environment, its anthropogenic load, the degree of degradation, threats and the need for protection, as well as knowledge about methods and instruments for controlling the use and protection of the environment (compare: Górka, Poskrobko, Radecki 1995, p. 61). Ecological awareness is a „system of knowledge and beliefs on the natural environment. It enables to see the relations between the status and character of nature and the conditions and quality of a person's life” (Wieczorek 1998, p. 261). Ecological awareness is defined by the hermeneutics of values: „To be” (rather than „to have”),
a kind moral attitude towards all living creatures and ecological imagination, an attitude of readiness to undertake ecological activity in the living environment (compare: Rosa 2001, p. 21).

Ecological awareness is expressed in an ecological way of thinking that considers the ecological aspect to be no less important than others considered when solving a given problem (compare: Pleijel 1995, p. 8). According to T. Burger, ecological awareness is „a descriptive category, talking about how a specific social group or the whole society sees its place in nature, how it perceives its relationship with the natural environment”12. I. Tuszyńska writes that shaping ecological awareness takes place thanks to the knowledge of the motives and methods of shaping and protecting the environment, the ability to perceive phenomena in ecosystems, predict and evaluate the consequences of the observed natural phenomena and human activities, along with an emotional relationship to the elements and the whole environment. Ecological awareness „expresses beliefs, views, opinions and patterns of behavior related to people's relationship with nature. The basis of ecological awareness is knowledge [...] cultural tradition of a specific social group, pressure of opinion of this group, own experiences” (Tuszyńska 2006, p. 8).

Conclusion

When undertaking the subject of the methodological implications of qualitative research in the field of environmental education history, one should remember about the importance of the researcher’s cultural competences related to the good quality of understanding and interpretation of cultural heritage, their mature awareness of the importance of historical sources (understood as primary materials subjected to external and internal criticism), especially in the process of carrying out qualitative research. Czesław Majorek generalized that sources play a key role, regardless whether they are archival, library, handwritten, printed, phono and photographic, multimedia, material, symbolic sources – they all include a valuable resource if the researcher asks them the right questions (compare: Majorek 2006, p. 58-59). Grzegorz Michalski, writing about the value of sources in the history of education, stated: „Both use the same type of sources, although they do not always look for the same in them” (Michalski 2004, p. 181). Sławomir Sztobryn emphasized the importance of the ordering of sources: problematic, chronological, problem-chronological or chronological-problematic, which lead to various results of the work (compare: Sztobryn 2004, p. 237).

The author would like to emphasize that the subject of historical sources has in principle been omitted in this text, because the author has devoted a separate article to this issue: „Magazines as a source of scientific research on the history

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of ecological education carried out in postmodern / postmodern culture” (see: Wolter 2021, p. 285-297).

Bibliography


