1. Introduction

Specialized study of the relationship between educational studies and ethics as two general scientific disciplines is connected with the constituting of partial scientific disciplines such as pedagogy, special pedagogy, andragogy or adult education, special pedagogy, research methodology of educational sciences, school legislation and other. Ethical norms were influenced by ideology in the Czech and Slovak environment before 1989. Ethics in educational sciences have gradually been revised after 1989. The presented paper focuses on the analysis of scientific texts on research methodology of educational sciences (pedagogy, andragogy or adult education, special pedagogy), dealing with research ethics and published in publishing houses of nation-wide distribution (Grada, Karolinum, Paido, Portal) in 1990-2015. Examined are ethical aspects of both quantitative and qualitative researches with regard to the development of contemporary global as well as local society.

Keywords: ethics, methodology, research, sciences of education, scientific texts

2. Ethics in research in educational sciences

The issue of ethics of research in educational sciences is focused on similar areas as it is in other social sciences, e.g., anthropology, political science, psychology or sociology. The codes of ethics in research in social sciences mainly follow general principles and set standards [14], [15], [16], [17]. These usually are general principles such as Professional Competence; Integrity; Professional, Scientific, and Scholarly Responsibility; Respect for People’s Rights, Dignity, and Diversity; Social Responsibility (comp. [14], [16]). The above principles are subsequently elaborated in ethical codes into numerous standards; e.g. in the case of the Code of Ethics of the American Educational Research
Association the ethical codes were elaborated into 22 main and many partial items [14]. According to Thomas A. Schwandt [13, p. 297], ethical codes in the field of research are mainly focused on "(1) identifying and defining ethical principles and analysing ethical issues entailed in the responsible conduct research" (respect for persons, beneficence, justice), "(2) cultivating ethical behaviour, including the capacity for ethical reasoning, to address dilemmas that arise in working with people in social, behavioural, and educational research" (moral sensitivity, moral judgment, moral motivation, moral character); and "(3) regulating ethical conduct" (self-monitoring of researcher; monitoring takes place via codes of conduct; governmental regulations and institutional policies)."

When it comes to educational research in the Czech background, ethics is specified by Jan Prucha [18, p. 8] as "a set of moral values and norms regulating activities of those who perform educational research". Principal discussion on an ethical code was started among members of the Czech Education Research Association (CERA) in 2008. The final version of the CERA Ethical Code was based on analyses of ethical codes of foreign research associations [19]. However, the final version of the association's ethical code, divided into two parts - Ethical Principles of Realization of Research and Ethical Principles of Publication Activities, was not approved until 2010 [20]. The Ethical Code of the Czech Pedagogical Society is similar [21]. The above-described facts imply the objective of the paper - to analyse specialized literature on the methodology of educational sciences and to identify the existence of ethical aspects in them before and after of the said codes [20], [21]. The research question is: are ethical aspects of research realization and publishing present in specialized literature on the methodology of educational sciences research? Specialized publications on the methodology of educational research are frequently used in methodology courses at universities and in transmitting knowledge and skills to next generations of researchers, educationalists, and teachers. Thus, in the globalized and at the same time individualized society [22], [23], the ethical dimension of research cannot be omitted in social sciences, including educational sciences, because research issues concern societies, communities, social groups and individuals, and researchers must be aware of the fact that, above all, they must not harm subjects of their researches, distort research results and use them to their advantage or abuse the researches of other specialists, as, in the end, approved by the ethical codes of multinational [14], [17] and national educational research associations [20], [21].

Specialized literature dealing with the methodology of educational sciences research in the Czech Republic is published by university publishing houses and also by national publishing houses focusing on production in the field of educational sciences. Publication distribution of university publishing houses outside their home universities is limited, except for the Karolinum Press of Charles University. This is why productions of national publishing houses are primarily analysed in responses to the research question. The research objects are books dealing with the methodology of research in educational sciences by national publishing houses published between 1990 and 2016 in the Czech Republic.

The form of specialized books on the methodology of educational sciences research by Czech and Slovak authors was influenced by foreign books translated into Czech before 1990, namely the books An Introduction to Educational Research (1964) by Robert M. W. Travers [24] and Foundations of Behavioral Research: Educational and Psychological Inquiry (1964) by Fred N. Kerlinger [25]. Both of these books do not pay attention to research ethics explicitly. Mentioned are mistakes which a researcher should avoid when designing research goals, questions, tools, choosing the research sample, applying research tools, interpreting data and preparing research reports. Similarly, this area, called "research ethics" in educational sciences today, is represented even in a university textbook on educational research written under the leadership of Jaromila Skalkova [26]. The said initial analysis of the most wide-spread books dealing with the methodology of educational sciences research before 1990 shows clearly that it is possible to find in them what should be avoided when carrying out a research or research errors; however, this is not the same as setting ethical principles and standards. In this context, researcher errors, research questions/hypotheses errors, research tool errors, sample selection errors, application of research tool errors, data interpretation errors, research report errors appear as most frequently cited in the literature [24], [25], [26].

3. Ethics on research methods in educational sciences in Czech literature

Specialized books focusing on the methodology of research in educational sciences used in lessons at universities are the object of the analysis. The content analysis did not include books that were focused on different social sciences or were too general. The catalogue of the National Library of the Czech Republic was used for selecting the analysis units. The starting point of the analysis were the following keywords: inquiry, research, pedagogy, education, educational, method. The next criterion was the Czech language of the books and their originality. We found 37 books written in Czech. In the case of application of the criterion of the nationwide distribution of the books, the selection was limited to 14 publications, based on the result of the second step of the analysis. Subsequently, duplicated books published in several editions were excluded, and this is why the final number of analysed publications is only 10 books. The set of books was divided into three groups in the third step of the analysis. The first group is primarily focused on quantitative research, i.e. Chraska [27], Pelikan [28], Prucha [18]; the second group deals more or less with both the types of research, i.e. Gavora [29], Manak &
also translated from Slovak and was written by several authors who implicitly indicated possible risks and errors in examining educational reality at some parts. The specialized books [30] and [31] do not explicitly deal with risks and errors in research; research ethics is not mentioned here. Book [30] focuses on the use of methods in diploma theses. Book [31] primarily discusses the situation of research in adult education in the Czech Republic. The two last specialized books of the research sample cover the field of qualitative research and are marked as [34] and [35]. The issue of ethics in research became more frequent in relation to the spreading application of the qualitative methodology. This statement is also supported by book [35] where one of the subchapters focuses on Ethical Dimensions of Research (Eticke dimenze vyzkumu) [35, pp. 43-50], in particular confidentiality, informed consent and making the research report accessible to research participants. This book regards the ethical dimension of research as an indispensable part of research realization, playing a significant role in the preparation of the research report. The last one of the analysed books, marked as [34], primarily representing qualitative research, does not deal with ethics in research implicitly. It specifically focuses on explaining the research design and its examples in particular cases.

Summing up the evaluation of the research sample of Czech specialized books that focus on research methodology in educational sciences in the last twenty five years, it must be stated that only three of them [28], [32], [35] explicitly deal with its principles and standards across the spectrum ranging from quantitative to qualitative research. Only one of them was published after the specialists’ discussion in professional organizations (CERA-CAPV, CPDS) about the need to work with the ethical dimension of research. Two-thirds of the books in

Table 1 Principles and standards of research ethics in books focusing on educational research methods

| Focus of specialized literature | Quantitative | Quantitative as well as Qualitative | Qualitative |
|-------------------------------|--------------|----------------------------------|-------------|
| How to carry out research     | Y (27)       | Y (28)                           | Y (29)      |
| Researcher errors            | Y (20)       | Y (18)                           | Y (19)      |
| Research questions/hypotheses| N (30)       | N (31)                           | Y (32)      |
| Research tool errors         | N (27)       | N (28)                           | N (29)      |
| Sample selection errors      | N (30)       | N (31)                           | Y (32)      |
| Application of research tool | N (30)       | N (31)                           | Y (32)      |
| Data interpretation errors   | N (30)       | N (31)                           | N (32)      |
| Research report errors       | N (30)       | N (31)                           | Y (32)      |
| Ethical principles           | N (30)       | N (31)                           | N (32)      |
| Ethical standards of behaviour| N (30)       | N (31)                           | N (32)      |
| Ethical standards of behaviour| N (30)       | N (31)                           | N (32)      |

Legend: Yes - occurring, No - not occurring, Partly - partly.

Svec [30], Prucha [31], Skutil et al. [32], Svec et al. [33]; and the third group consists of books dealing with qualitative research, i.e. Gulova, Sip et al. [34], Svaricek, Sedova et al. [35]. The assigned letters represent heads of the columns of Table 1 Principles and standards of research in books focusing on educational research methods.

Criteria showed in the first column of Table 1 were set. It was examined whether the authors focused on the teaching of research realization, followed by seven variables focused on the faults or risks in research; subsequently, three variables related to research ethics based on Schwandt’s text [13] are given.

The said analysis shows that in the case of quantitatively focused books, research ethics is explicitly dealt with in the second chapter of the book [28, p. 35], and errors in research are the object of both the specialized book [18] and [28]. Book [27] discusses researcher errors; however, its main objective is to introduce procedures in statistical data processing.

In the case of the books covering both quantitative and qualitative research, the question of ethics in research is discussed in the specialized book [32], containing the chapter Ethical Principles in Educational Research (Eticke principy v pedagogickem vyzkumu) [36] dealing with ethics at the stage of research preparation (selection of research sample, guaranteeing respondents’ anonymity, use of informed consent), publication of research outcomes (undistorted presentation of research result, repeated publication, work with quotations and rephrasing). In the case of other chapters, their authors discuss risks and frequent errors in the application of research methods and data analysis. Attention is paid to risks and errors in research realization in the book [29] translated from the Slovak language; however, the issue of ethics in research is not covered there. The next book [33] is also translated from Slovak and was written by several authors who implicitly indicated possible risks and errors in examining educational reality at some parts. The specialized books [30] and [31] do not explicitly deal with risks and errors in research; research ethics is not mentioned here. Book [30] focuses on the use of methods in diploma theses. Book [31] primarily discusses the situation of research in adult education in the Czech Republic.

The two last specialized books of the research sample cover the field of qualitative research and are marked as [34] and [35]. The issue of ethics in research became more frequent in relation to the spreading application of the qualitative methodology. This statement is also supported by book [35] where one of the subchapters focuses on Ethical Dimensions of Research (Eticke dimenze vyzkumu) [35, pp. 43-50], in particular confidentiality, informed consent and making the research report accessible to research participants. This book regards the ethical dimension of research as an indispensable part of research realization, playing a significant role in the preparation of the research report. The last one of the analysed books, marked as [34], primarily representing qualitative research, does not deal with ethics in research implicitly. It specifically focuses on explaining the research design and its examples in particular cases.
the research sample are focused on risks, errors in research and ethics in writing research reports. The analysis showed that even the books published after the discussion of ethics in educational research after 2009 do not automatically include ethical dilemmas in their contents [31], [34].

4. Conclusion

The terms educational sciences - ethics - research are undoubtedly related and are even codified in the form of the Ethical Code of CERA and the Ethical Code of CPDS in the Czech background. In the books published before 2010, their authors tried to point out risks and errors in research and their prevention, including ethical ones, despite the fact that they were not explicitly named.

Ethical principles and standards are already set in some recent specialized texts. Only three books of the analysed sample intentionally pay attention to the ethical dimension of educational research. Of the books addressing the analysis of ethics in research, one was published in 1998 [28] and the second one in 2007 [35], i.e. before the discussion of research ethics in the CAPV-CERA. From a different perspective, it could be the book [35] that started the discussion. However, it cannot be said that the discussion of an ethical code in the Czech professional community resulted in integrating the issue in specialized books on research in educational sciences, as proved by the published books [31] and [34]. Specialized books are being published, not dealing with the issue of ethical dilemmas in research. One of the causes may be the fact that most of their authors work as university teachers who include chapters into their books according to the structure of their courses focussing mainly on acquiring research methods, sample selection, research methods, data collection, and processing. Ethical principles and standards may be a latent part of their work that may frequently escape their notice.

It is necessary to manifest ethical principles in relation to the spreading issues of educational research, diversity of research samples, publishing research reports and messages in the public space of the Internet. The published results of researchers, carried out in correspondence with properly written specialized books on research, may have both local and global impacts on the evaluation of a researcher’s work and examined field due to the neglect of ethical principles.

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