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"Mutual Learning Education" – Constructivism in School Practice

"Edukacja wzajemnego uczenia się" – konstruktywizm w praktyce szkolnej

Keywords:
early school education, constructivism, action research, teacher, educational methods

Summary: The vision of school based on constructivist education, in which the students are active participants and where the child's knowledge is developed in the course of interaction with the environment, has long been the goal of many educational experts. Unfortunately, it remains just a theoretical construct for most of them, not applicable in a real school. Similarly, many teachers and principals, though they agree with the assumptions of constructivist education, do not see the possibility of implementing it at school and ask directly: What would it look like? What is the essence of it? What should it be based on? These doubts formed the basis for the development of a research project titled "Mutual Learning Education – Constructivism in School Practice," whose main objective was to transform the instructional teaching paradigm applied by teachers into a constructivist educational model. This article presents the results of part of the research conducted within the framework of the above-mentioned project devoted to changing the instructional educational methods applied by teachers into constructivist methods intended to strengthen students' skills connected with responsibility and involvement in the development of their knowledge.

Słowa kluczowe: edukacja wczesnoszkolna, konstruktywizm, badania w działaniu, nauczyciel, metody edukacyjne

Streszczenie: Wizja szkoły opartej na konstruktywistycznej edukacji, w której uczeń jest aktywnym uczestnikiem, gdzie wiedza dziecka tworzona jest w toku interakcji z otoczeniem, stanowi od dawna cel wielu ekspertów w dziedzinie edukacji. Niestety, dla większości z nich pozostaje jedynie konstruktem teoretycznym, niemającym zastosowania w realnej szkole. Podobnie myśli wielu nauczycieli i dyrektorów, którzy mimo że zgadzają się z założeniami edukacji konstruktywistycznej, nie widzą możliwości urzeczywistnienia jej w szkole i pytają wprost: „Jak miałoby to wyglądać?", „Na czym właściwie polegać?", „Na czym się opierać?". Te wątpliwości stanowiły podstawę do opracowania projektu badań w działaniu pt. „Edukacja wzajemnego uczenia się – konstruktywizm w praktyce szkolnej", którego głównym celem było dokonanie transformacji instrukcyjnego paradygmatu nauczania stosowanego przez nauczycieli w konstruktywistyczny model edukacyjny. W artykule zaprezentowano wyniki części badań prowadzonych w ramach tego projektu, poświęconych zmianie instrukcyjnych metod edukacyjnych nauczycieli na metody konstruktywistyczne, wzmacniające u uczniów umiejętności w zakresie odpowiedzialności i zaangażowania w rozwój własnej wiedzy.

Introduction

In recent years, in opposition to instructive education – which does not give the child the opportunity to develop competences related to the operationalization of knowledge and critical, reflective thinking – the vision of modern education based on the **theory of constructivism** was born, designed to change inductive didactics into an education of mutual learning, in which the teaching process is based not so much on sharing knowledge or activating the student, but on transforming the teaching relationship, thanks to which a student becomes an explorer, discoverer and thinker, and the teacher – a tutor and animator of the student's learning process (Witkowska-Tomaszewska, 2015, p. 62).

Mutual learning education is based on a process of cooperation and shared experience because children and teachers learn together, although their learning goals are different. Students are involved in developing their own knowledge and understanding of the world, while teachers learn how to help them with

this (Witkowska-Tomaszewska, 2015, p. 67). In this perspective, the goals in education are replaced by values, because education is to be a platform for developing self-decision, self-steering and autonomy, i.e., the basic resources that create the subjectivity of an individual. This means that "mutual learning education" is a pedagogy that follows the student, where the teaching content is not the purpose of education but accompanies it, because the main value is the holistic development of students – "equipping them with tools that will allow them to face the challenges of changing reality, in harmony with each other and with others" (The Royal Ministry of Education, 1997, p. 5). This means that the main purpose of mutual learning education – which is rooted in constructivist learning theories – is to equip a child not so much with knowledge but with the appropriate "resources" that allow them on the one hand, to actively participate in the changing reality of knowledge and on the other, to create their own individual development path. Building this holistic vision of education should be based on six values, which are also the basic pillars of mutual learning education.

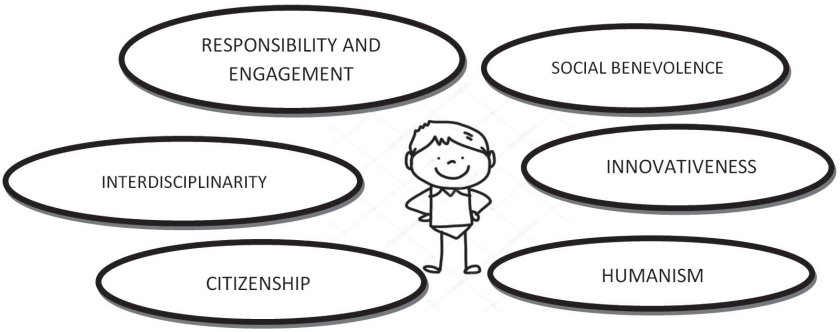

Figure 1.
Pillars of mutual learning education.
Source: own work based on Core Curriculum (The Royal Ministry of Education, 1997) and assumptions (Eurydice European Office, 2002).

Developing HUMANISTIC values in children is the first pillar of education based on mutual learning. This means building education that refers to fundamental values, such as tolerance, respect for dignity, subjectivity, spirituality, etc.

The second pillar of holistic education is the development of INNOVATIVENESS, i.e., focusing on strengthening children's creative ways of acting and

thinking, learning through experience, learning through practice and creating education in reference to human cultural heritage, developing a child's critical thinking by referring to scientific learning and understanding of reality (experiencing, experimenting, diagnosing, etc.).

The third pillar of building mutual learning education is the development of CITIZENSHIP values, i.e., strengthening students' skills and competences needed to build a bridge between personal development and labor market expectations. In order for children to achieve this state of internal homeostasis, the school should show them both the benefits and dangers of modern technologies and strengthen the skills needed to use new technological solutions to create a new quality of the social and personal lives of individuals. This approach requires active learning, i.e., a teaching system in which students "build their own knowledge by engaging their own skills and through personal involvement in the process of acquiring their own knowledge. […] Education should show the student that success is manifested in their personal work, through their own skills and teach them how to take responsibility for the learning process and their own life" (The Royal Ministry of Education, 1997, p. 18). To achieve this, the child must be involved in the learning process.

INTERDISCIPLINARITY is the fourth pillar of mutual learning education, which means that the school should organize the learning process in a holistic way. It is important that knowledge always refers to man, society and nature, which are the basis for developing children's maturity to life, taking on personal and social challenges, learning to cooperate and cooperating in a group, learning to act for the benefit of the community and for its good, for one's personal development, etc.

The fifth pillar of mutual learning education is the development of PROSOCIAL values, i.e., the development of social awareness by strengthening pro-civic attitudes related to being an active participant in the local community, thus teaching children, e.g., knowledge about the rights and responsibilities arising from being a member of a given community. An important element of this dimension of a holistic education is the process of the inclusion of the local community, in other words, creating a socialized school by involving members of the local community to contribute to the teaching process.

The last dimension of mutual learning education is developing RESPONSIBILITY and COMMITMENT, i.e., building interpersonal and intrapersonal skills that teach children the skills to participate fully in the planning process

and to evaluate the learning process, as well as to develop as a person (interests, expressing emotions, curiosity, peer-relationships, cooperation, etc.).

In so-defined education, there is a departure from the teaching paradigm in favor of the learning paradigm. The education process is, therefore, based on the cooperation and common experiences of the teacher and the student. The main task of the former is to help students organize educational situations that will contribute to their development in the six dimensions of learning already discussed. This approach requires a completely new way of organizing work from a teacher. Most teachers at an instructive school use an authoritative style of managing the educational process which is based on control over all student activities and continuous verification of their achievements (Witkowska-Tomaszewska, 2015, pp. 80–81).

In constructivist education, the teacher becomes a co-author of the educational process and a partner of the student in his or her development, and thus adopts a democratic model of class management. This means that students take an active part in making decisions, and the teacher only defines the goals of the activities, leaving the method of implementation at the students' discretion.

The vision of a school based on constructivist education, in which the student is not the recipient of education, but its active participant, where the child's knowledge is formed through interaction with the environment, has long been the goal of most theorists and practitioners in education. Unfortunately, it remains mostly only a theoretical construct for academic lecturers, with no application in real school. Similar reflections come from teachers and headmasters who, although agreeing with the principles of constructivist education, do not see the possibility of implementing it at school, asking directly: What should it be like? What is the essence of it? What should I rely on? These doubts formed the basis for developing a research project that aims to change teachers' educational practice from instructive to constructivist.

Methodological assumptions of own research

This article is devoted to presenting part of the research on changing the instructional education methods of teachers to constructivist methods that strengthen students' skills in the area of responsibility and commitment to the development of their knowledge (stage III).

The research was conducted as part of the project "Mutual learning education – constructivism in school practice," which was implemented at Primary School No. 264 in Warsaw in selected classes of early primary-school education.

The main theoretical goal of the project was to transform the instructional teaching paradigm used by teachers working in primary school in grades 1–3 into a constructivist educational model.

The project was conducted in an interpretive paradigm. Action research was the method applied in the project. The source literature provides numerous definitions explaining the essence of this research method. The methodological assumptions of this project adopted Robin McTaggart's definition, according to which, action research is understood as a research method consisting in "self-reflective activity that the participants in social situations undertake to expand and strengthen the rationality and justice of their social and educational practices, as well as understanding these practices, but also the situations in which they take place" (Kemmis & McTaggart, 1988). In other words, under the project of "Mutual Learning Education – Constructivism in School Practice," action research was conceived as a method consisting in reflective actions taken by practitioners aimed not only at self-reflection on their daily activities, but also their undertaking in this regard of specific activities improving the quality of their daily practice with the substantive support of the researcher.

Making such an attempt in the school domain – as many practitioners and education theorists emphasize – is currently of particular importance. This aspect is raised by Prof. Czerepaniak-Walczak (2014, p. 182), who points out "that hundreds, and even – globally – thousands of publications containing the results of educational research appear every year, they have low (if any) impact on change of school and improving learning conditions because they are unrelated to school practice." That is why it now seems important to reorient the research towards engaged research, in which the educational context and educational practice are both important.

Based on the assumptions and western countries' experience (see Elliott & Adelman, 1974; Elliott & MacDonald, 1975; Hustler, Cassidy & Cuff, 1986), the "Mutual learning" project has attempted to bridge the gap between theory and practice. The foundation of the project was "creating a base for development of learning as a practice grounded on empirical data […]. Over the past thirty years, many academic researchers in education in the United Kingdom, Europe and the United States […] have pointed out the worrying fact that teachers rarely use the results of education research in their practice.

[…] The interest of teachers in research requires encouraging them to participate in such research projects that directly affect and strive to overcome their practical problems" (Elliot, 2010).

This project was interactive – in accordance with the assumptions of the action research involved. Its participants went through three levels: educational inspiration (stage I of the project), evaluation of their own educational practice (stage II) and transformation (stages III and IV).[1] During evaluation meetings, the teachers, after self-evaluation of their professional work, identified areas in which they want to change their work to make the transformation of instructional educational practices into constructivist practices possible.

The methods used for data collection were focused group interviews with the teachers who qualified for the project, evaluation meetings every two weeks, all-day observations of classes every two weeks and film and photographic documentation of classes prepared by the researcher and the teachers.

The study covered teachers of grades 1–3 who declared their willingness to change their educational practice. Three teachers qualified for the project: two teaching third grade and one teaching first grade. The basis for the qualification was the preparation of a field project for students and conducting one demonstration class.

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[1] **STAGE I: Educational inspirations.** Teachers who qualified for the project, together with a group of six other Polish teachers from kindergartens and schools in Warsaw and three university teachers of the Maria Grzegorzewska University – A. Korwin-Szymanowska PhD., E. Lewandowska PhD., A. Witkowska-Tomaszewska PhD., under the leadership of Kirsti Vindal Halvorsen PhD. from the University of Agder – attended a study visit dedicated to learning about the holistic Norwegian education. The visit took place in the training center of the University of Agder in Kristiansand and was a continuation of the project entitled *Education for a sustained development in teacher training*. At this stage, the teachers participated in practical classes and theoretical lectures demonstrating various methods and manners of work with children. **STAGE II: "Educational awareness." Self-evaluation** aimed at specifying what the teachers' theories related to the "nature of a student's mind" were and what were those of the students concerning "the nature of the learning process." It was a stage of self-evaluation, which was the basis for determining the needs and goals of work in the field in their own professional work and setting goals for subsequent stages of the project. **STAGE III: Transformation of the educational practice of "Methods."** During evaluation meetings, educational methods were developed that aimed – according to the results of the first research phase – at moving away from instructional methods in favor of methods that develop children's responsibility skills and engaging students in developing their knowledge. **STAGE IV: Transformation of the educational practice of "Organization of the learning environment"** in line with the results of the self-evaluation was devoted to changing the learning environment.

Own research results

In accordance with the assumptions of the involved action research, the teachers independently determined the scope of change of their methodological experience. During group interviews, they identified two main areas in which they wanted to change their educational practice. The first area was in the educational methods used in their daily work practice. The second was a change in the teaching environment and space.

The paper will focus on the first area devoted to educational methods. As part of the transformation of instructional educational methods, methods were developed together with the teachers to support children's competence in responsibility and commitment to the development of their knowledge, attitudes and skills, which is the foundation of constructivist education. During evaluation meetings, teachers proposed the introduction of methods that would support pupils in developing competences in three areas:

1. Responsibility for oneself as well as for one's knowledge and social and cultural competences ("self-teaching," "student-shaping record book");
2. Involvement in the lesson design process ("young scientist," "floor book");
3. Design and management of own actions and thinking ("my calendar").

The first research tool covered by the study the teachers introduced to the education process was the "self-teaching" method – aimed at developing children's responsibility for themselves and their knowledge as well as their socio-cultural competences. It consisted in each pupil keeping a school record book in which at the beginning of a week, the students set two or three tasks for themselves that they would like to work on in a given week. For example: "Do not disturb others in the lesson" (Karol, 3rd grade); "Volunteering for answers" (Ania, 3rd grade); "Volunteering at least once for reading" (Kasia, 3rd grade); "Remember to do homework" (Karol, 3rd grade). At the end of the week, the children themselves assessed what they had achieved and assigned themselves short descriptive and numerical grades in their own diaries. The teachers supported students at the stage of setting goals and assisted students in the self-evaluation process. At the end of the week, during summing-up of the classes, the children talked about their successes and failures.

Comment: For the teachers participating in the project, this method marked a turning point in the area of the student assessment system. Thanks to it, for the first time in their practice, they shifted the focus from external assessment

of students to self-reflection assessment. Thus, they gave the students space to take responsibility for their educational attitude and the level of their school competence. In the first stage, despite their great commitment and willingness to change, the teachers were full of doubts and fears. They said, among other remarks: "I don't really know how to implement it." "I can't believe it will work. But we will try." "Well, we will have something new here as the kids start to judge themselves." After a month of using the method in everyday practice, one could already notice observations and reflections about the assessment system and also about the pupils themselves and their attitudes: "They really try hard." "Some set very low goals and others too high." "It is important to talk to them when setting goals." "Interestingly, the children got really involved." "Some of them surprised me with their goals. I didn't know it was important to them." "It's interesting that they care more and try harder now." "They're really committed." "I won't say it's perfect in class now, but it's different." There were also reflections that concerned the teacher's own practice: "I didn't know I would make it." "I have a completely different approach to grading." "Sometimes I'm more tired."

The second research tool implemented into the educational process was the "student-forming record book." Under this method, each child set up a notebook in which they had the opportunity to present what they had learned, found out, discovered, what was interesting or boring to them, etc. On the first page, students wrote their name and gave their student-forming record book a title to give it the form of a book, e.g.: "My Encyclopedia of Knowledge," "My Book," "Great Book of 3a," "Explorer's Book," etc. A weekly topic of classroom activities was written at the top of the page. Each page of the notebook was divided into four parts. Each part contained a question posed to the author. The first part: *What would I like to find out?* The second: *What have I learned?* The third: *What are the three most interesting pieces of information, facts, news, trivia from this week*? The fourth: *What was not of interest to me? What was boring?* Children filled out the notebooks at the end of the school week as part of their self-evaluation of the knowledge and skills they managed to discover, learn, etc. They could make use of all the materials that they accumulated during the classes – notebooks, textbooks, books, notes, photos, etc.

Comment: This method was an opportunity for teachers to depart from the traditional way of organizing classes, where the student is perceived as an "empty vessel that they should fill with knowledge" (Klus-Stańska & Szczepska-Pustkowska, 2009, p. 52), in favor of seeing students as education partners

who define for themselves what the goal of education is and as people who are capable of taking responsibility for their own knowledge and skills. This tool, despite the fact that teachers devoted a lot of time to its development, has raised many doubts as to the sense of the whole undertaking. This crisis occurred in the first phase of introducing the diary in the classroom: "[The children] did not know what was going on." "There was a terrible confusion." "I lost the whole lesson, while the children did not know what to write in the notebook." "In my class, it was only Weronika who got the idea of the record book." "I do not know if it makes sense, they are not yet mature enough." After a month of using the method, the teachers still had many objections, pointing to the immaturity of children and the need to standardize the educational process. The teachers displayed great discouragement with this tool: "I am tired now." "I don't think it makes any sense." "The worst thing is that they don't feel like doing it." The lack of visible and quick effects caused a great deal of frustration and the desire to give up. There was a lot of irritation at giving up control over the educational process. According to the teachers, giving up control was to result in the maturity and responsibility of the children, similarly to the principles expressed in the poem by Julian Tuwim – "It's easy all right: Click, and there is light! Flick once more – then, We're in darkness again. And if you give it another go – You get the glow you had before. It has such a secret might There in the wall, that tiny trick! Night – light – Light – night" (Tuwim, 2010, transl. David Malcolm). The teachers did not take into account the fact that for a long time, the children had taken part in education in which they were fully controlled by the teacher and that they did not yet have the resources that would allow them to use this tool. Moreover, they had not been aware that departing from the instructional manner of organizing the educational process meant giving up power, even at the price of chaos or a temporary regression of the children. The teachers withdrew from using this tool. The experience of one year's work shows that it is very important to gradually introduce this method into the educational process, to spread it out over time. It is worth introducing parts I and II in the first two months, stage III in the next two and stage IV in the end. It is only after six months that the record book has been fully completed.

The third tool introduced into the educational process with the aim of transforming the teaching-learning process from instructional to constructivist was the **"floor book"** tool. Before discussing a given issue, the teacher and children created a lesson schedule. The floor book assisted in this process.

A large sheet (this can also be done on the board) is divided into four parts. PART I: "WHAT WE ALREADY KNOW" – after the topic is stated, the children, together with the teacher, wrote down what they already knew on the subject. PART II: "WHAT DO WE WANT TO KNOW" – the pupils wrote down what they would like to find out. The teacher also contributes here, writing what she would like to share with them, what to teach them, what to tell about. PART III: "HOW TO FIND OUT" – the teacher, together with the children, lists the exercises, tasks, workshops, experiments, etc. that should be done to find out what they want to know. Students can use textbooks, books, encyclopedias, information from the Internet, and they can even invite guests as well. Each idea is taken into account and discussed with the class and teacher. PART IV: "WHO? WHAT? HOW?" – is related to the division of tasks. Who will take care of the preparation of a given exercise, task or a workshop? Who can provide us with the things that will be useful to us? The teacher shares the duties and responsibilities with the children.

Comment: This method was the second tool for teachers – after the student-forming record book – giving them the opportunity to develop competence in the skills of constructing a democratic educational process. The teachers and students jointly design the learning process, thus giving them the opportunity to practice the skills of planning their own educational space. After experience with the student-forming record book, the teachers started from looking for ways to introduce the tool into the educational process. They came to the conclusion that work should take place in teams specially selected for the task. They tried to match groups in such a way so that each child had a different function in the team: a leader, a creator, a narrator, a judge. After the ideas were developed by the teams, they were discussed in the classroom and a common weekly work plan was developed. The work process resembled the "snowball" method. This proved very helpful. In this case, in the teachers' opinion, the period of anarchy and chaos with the children was much shorter: "The crucial thing is to divide them into teams." "Thanks to working in a group, the children quickly understood what was going on." After a month of using the tool, there were many comments in the teachers' opinions regarding the educational competence of students: "It was easy for the kids to determine what they know about a given topic, but it was very difficult for them to say what they would like to learn." "Children have a hard time specifying what they want to know." "They don't need to look for information, they want to be told what to write there." "It was the first time the children wanted to go to the library to pick

a book." "They are very creative when they are to invent the lesson content themselves." This tool gave the teachers an opportunity to observe the student as a co-author of the educational process. And although they gave students a lot of space to develop and create the educational process, they still tried to take control and strongly interfere with children's ideas in many situations. The need to preserve the homogeneity of the educational process and to base it on the educational package meant that teachers repeatedly proposed the children to include exercises and tasks from the textbook in their ideas. When this issue was raised during the evaluation meetings, they were clearly surprised by their approach: "I did not pay attention to this." "I know it, but you have to implement the textbook." "We cannot afford holes in the package."

The fourth method introduced into the educational process was the **"young scientist"** tool – aimed at developing children's competence in the field of involvement in the lesson design process. It was intended to offer an interactive way of designing lessons, changing the role of the pupils from the recipients of education to active participants who develop their knowledge and skills through research, discovery, exploration, searching for answers and the skillful asking of questions.

Comment: This method was very natural for teachers. You can see that the construction of active classes in which the student is a discoverer and researcher is easy for teachers: "At last, it's something we know about." "Yes, this method is the coolest." "We could have started with that." "Cool thing." The multiplicity of ideas has shown that teachers have great ease and freedom in creating and designing active lessons for children. The "Young Scientist" method also very much showed the "educational dissonance" in the teachers' workshop. On the one hand, the teachers created a space for a creative and constructive learning process, while on the other, they used an instructional approach in practice. In other words, one could clearly see the strong roots in the instructional model of thinking about education, in which the goal is more important than the development of the child's knowledge and skills. An example of a good illustration of the mechanism of "educational dissonance" could be the *Tree* class. The teacher did not give the children space to explore, search, make mistakes, etc. The lesson was organized so that the children would follow the teacher's way of thinking and acting the entire time. As a result, although the children were in an open space, they were unable to observe or discover anything by themselves. The teacher wanted them to be under her complete control. The children were given instructions which they were supposed to follow, e.g., "please find a maple

leaf," "please mark roots, bark on the tree model," "please measure this tree." Another example would be the situation that arose during the lesson entitled *The Color Palette.* When one of the pupils discovered a firebug and started to call for the other children, the teacher's comment was as follows: "Stop it with this insect now, you are to collect objects for the color palette." During the project, this cognitive dissonance significantly decreased because the teachers began to focus more on the children and what was interesting to them, and to build their knowledge around it. An example would be a dead pigeon which the children discovered in the bushes during fieldwork entitled *Measures and Sizes*. The teacher came up to the children and answered their questions and doubts. She told them about the circle of life. This method showed that following the child – and not only his or her "passive activation" – is a very important element of the learning process and involves paying attention to a pupil's doubts, discoveries and, sometimes, mistakes.

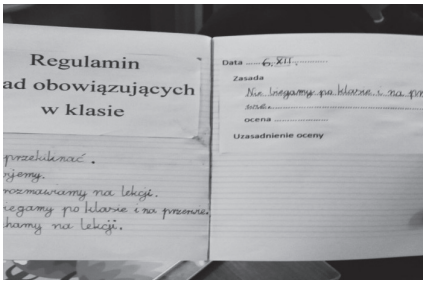

Figure 2.
Grade 3., Self-Teacher.
Source: own research.

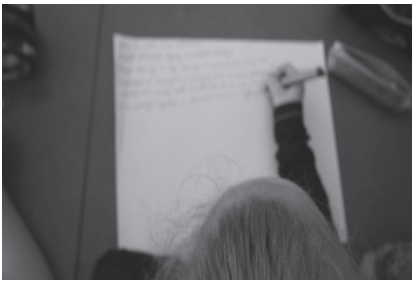

Figure 3.
Student-Forming Record Book, grade 3.
Source: own research.

Figure 4.
Floor book prepared by the students of grade 3.
Source: own research.

Figure 5.
Air Classes.
Source: own research.

Figure 6.
Tree lesson.
Source: own research.

Figure 7.
Colour palette lesson.
Source: own research.

Conclusion

The research offers a practical guide on how to transform instructional educational methods into constructivist ones. It also shows how the ideas of constructivism can be practically transferred to the everyday life of the school in the field of early school education design.

In addition, the presented analyses show the importance of action research as a research method. It proves that engaged research is an invaluable source of inspiration and guidelines for work, both for practitioners (by creating specific education tools that can be easily transferred to everyday life in school) and for theoreticians dealing with the process of change or the context of changing the education paradigm. Most importantly, the research is a platform for the joint activities of theoreticians and practitioners in the field of changing education.

References

Bałachowicz, J., Halvorsen, V.K. & Witkowska-Tomaszewska, A. (2015). *Edukacja środowiskowa w kształceniu nauczycieli* [*Environmental Education in Teacher Training*]. Warszawa: Akademia Pedagogiki Specjalnej.

Czerepaniak-Walczak, M. (2014). Badanie w działaniu w kształceniu i doskonaleniu [Action Research in Education and Training]. *Przegląd Badań Edukacyjnych*, *19*, 181–194.

Elliott, J. & Adelman, C. (1974). *Ford Teaching Project Reports and Documents, Care*. Norwich: University of East Anglia.

Elliott, J. & MacDonald, B. (eds.) (1975). *People in Classrooms*. Norwich: University of East Anglia.

Elliot, J. (2010). Używając badań do ulepszenia praktyki: koncepcja praktyki opartej na danych empirycznych [Using research to improve practice: the notion of evidence-based practice], transl. K. Liszka. In: H. Červinková & B. Gołębniak (eds.), *Badania w działaniu. Pedagogika i antropologia zaangażowane* [*Action Research. Involved Studies on Education and Anthropology*] (pp. 155–182). Wrocław: Wydawnictwo Naukowe Dolnośląskiej Szkoły Wyższej.

Eurydice European Office. (2002). *Kompetencje kluczowe. Realizacja koncepcji na poziomie szkolnictwa obowiązkowego* [*Key competencies. A developing concept in general compulsory education*]. Brussels: Eurydice European Office.

Hustler, D., Cassidy, T. & Cuff, T. (1986). *Action Research in Classroom and Schools.* Boston: Allen & Unwin.

Kemmis, S. & McTaggart, R. (1988). *The Action Research Planner*. Geelong: Deakin University Press.

Klus-Stańska, D. & Szczepska-Pustkowska, M. (2009). *Pedagogika wczesnoszkolna – dyskursy, problemy, rozwiązania* [*Early Childhood Education – Discourses, Problems, Solutions*]. Warszawa: Wydawnictwa Akademickie i Profesjonalne.

The Royal Ministry of Education, R. a. (1997). *Core Curriculum for Primary, Secondary and Adult Education in Norway*, p. 5: Norwegian Board of Education, www.udir.no/kl06/NAT1-03 [accessed: 18.10.2019].

Tuwim, J. (2010). *Wiersze dla dzieci* [*Poems for Children*]. Warszawa: Prószyński Media.

Witkowska-Tomaszewska, A. (2015). Konstuktywistyczna wizja edukacji [Constructivist Vision of Education]. In: J. Bałachowicz, K.V. Halvorsen & A. Witkowska-Tomaszewska (eds.), *Edukacja środowiskowa w kształceniu nauczycieli: perspektywa teoretyczna* [*Environmental Education in Teacher Training. A Theoretical Perspective*] (pp. 63–94). Warszawa: Wydawnictwo Akademii Pedagogiki Specjalnej.