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Educational Methods, Forms and Aids Applied in Polish and Hungarian Schools at the Level of Early Childhood Education. Research Report

Metody, formy oraz środki dydaktyczne stosowane w szkołach polskich i węgierskich na poziomie edukacji wczesnoszkolnej. Komunikat z badań

Keywords:
educational methods, forms of class organization, teaching aids, early childhood education

Summary: The article analyses issues connected with the educational methods, forms of class organization as well as teaching aids applied by teachers of early childhood education. It also evaluates the effectiveness of the above-mentioned factors since, to a large extent, they determine the success of educational processes. The article aims at examining the content related to the aforementioned issues based on the research conducted in 2016 among 200 early childhood education teachers from Poland (Tarnów and the Tarnów district) and 200 teachers from Hungary (Kaposvári, Sárospatak).

Słowa kluczowe:
metody kształcenia, formy organizacji zajęć, środki dydaktyczne, edukacja wczesnoszkolna

Streszczenie: Tematem artykułu jest analiza problematyki stosowania przez nauczycieli edukacji wczesnoszkolnej metod kształcenia, form organizacji zajęć, środków dydaktycznych oraz ocena ich efektywności. Powyższe czynniki w istotnym stopniu warunkują powodzenie procesu dydaktycznego. Celem artykułu jest analiza treści dotyczących wskazanej problematyki na podstawie badań przeprowadzonych w 2016 roku wśród 200 nauczycieli edukacji wczesnoszkolnej z Polski (Tarnów i powiat tarnowski) oraz 200 nauczycieli z Węgier (Kaposvári, Sárospatak).

Introduction

Expectations regarding education in modern schools are increasing and concern mainly the ability to search for and evaluate information that can be used in practice to solve problems and help in understanding the world around us. As a learning and motivating environment for unrestricted development, schools should provide opportunities through multi-sensory experiences and exploration of the environment, giving students autonomy and fostering a sense of competence and relations with others (Michalak, 2016). Technological progress, ethical and cultural changes require adapting methods of working with children, forms of class organization and educational resources to the learning school, i.e., the school in the state of creation (Hajdukiewicz & Wysocka, 2015). Contemporary education – not only early childhood education, but the process as a whole – has ceased to rely solely on providing children with content from the core curriculum and programs. Now, it is mainly based on arranging various educational situations and creating conditions conducive to forming important notions and logical schemes in the minds of students, which shall later serve as the foundation for their knowledge (Semadeni, 2016). Child-friendly early education should trigger the child's activity. This is facilitated, inter alia, by the proper organization of integrated classes in a suitably prepared space, allowing for the use of effective educational methods and various forms of activity. A targeted selection of didactic aids, taking into account both their traditional presentation and the possibility of designing and creating them from raw materials, complements this activity (Kędra & Zatorska, 2014).

Educational methods, forms and aids – factors determining the effectiveness of the early childhood education process

A school functioning as a "construction site" should surprise and intrigue students. This happens, inter alia, thanks to teamwork, reference to the student's personal knowledge, respect expressed in the choice of working methods and didactic aids that take into account the different competences and learning styles of children (Kędra & Zatorska, 2014). Stimulated in this way, their cognitive curiosity exploits the strengths of the brain, combines knowledge with emotions and allows children to look for solutions to various problems and tasks independently (Stańdo & Spławska-Murmyło, 2017). What also conditions effective learning is an understanding of how our memory functions and the rules that govern remembering. In order to conduct classes well, it is worth considering what methods and forms of organization should be used to make the process of remembering, in which conscious memory plays a significant role, operate at a high level (Smolińska & Szychowski, 2011).

The main objectives of education aimed at supporting the child's comprehensive development involve: forming appropriate cognitive patterns in his or her mind and developing operational thinking; helping the child collect experiences necessary for his or her functioning on a daily basis, stimulating reasoning, independent thinking and criticism; developing the ability to apply the acquired knowledge in specific life situations (Semadeni, 2016). This is to be achieved through, inter alia, alternative methods of work, which include: project work, information and communication technologies (ICT), textbook-free teaching, activating methods and techniques, games, recreational activities, drama techniques, elements of the Dalton Plan, the Maria Montessori system (Wydział Rozwoju Szkół i Placówek [Department of School and Educational Centre Development], 2016, p. 12). Activating methods give the opportunity to experiment, develop content and recognize the originality of thought, performance and creation. They allow for mistakes to be made, provide an opportunity to learn in an environment full of challenges and let the student make decisions regarding his or her own development. At the same time, however, they can also prove to be difficult in terms of the organization of space, preparation of aids, time management and involvement of all team members (Fechner-Sędzicka, Ochmańska & Odrobina, 2012).Lack of balance in the choice of methods (activating and expository) may, over time, discourage children from participation or cause the dominance of controlled activity, so

that the position of the student will change from the object to the subject of education (Skura & Lisicki, 2012). These opinions are confirmed by a survey conducted in Hungary. According to a report prepared therefrom, measures to modernize education include support for those teaching methods that increase engagement. What also serves to increase effectiveness is strengthening partnerships with those research centers which constitute a source of progress, as well as undertaking specific activities at the level of higher education to prepare staff for the teaching profession (Berács, Derényi, Kováts, Polónyi & Temesi, 2015).

Another element that determines educational success is connected with the use of diverse forms of class organization that allow children to be more sensitive to the needs of others, develop the habit of caring for the weak, teach cooperation and the performance of various functions in a group, encourage mediation and discussion, improve communication skills and respect the accepted principles of co-responsibility. While working in teams, children take on different roles, e.g., as teamwork organizers or regular members, which is good preparation for functioning not only in the school community, but also outside it (Kędra & Zatorska, 2014). During the classes, the teacher assigns the role of an assistant, who runs parts of the class, the role of a tutor, who explains certain issues to other students, and the role of a leader, who encourages the team to prepare tasks and provides the opportunity to present their achievements to the class (Fechner-Sędzicka et al., 2012). Working in groups prevents stigmatization of an individual, allows discovery of one's strengths and weaknesses, promotes activation, mutual inspiration and unification of the verbal and non-verbal messages communicated by children. The group activities should be preceded by work in pairs, which is supposed to teach children how to support each other and how to search for information. Once all the students in the class have successfully completed this stage of work, larger groups of students can be organized, with focus on the natural processes of communication and reflection sharing. Too little diversity in organizational forms and a longer period of using them in classes with children result in a natural tendency to systematize structures. Therefore, it is worth changing the composition of groups and their number and also, to plan them well to be able to estimate how much work is contributed by each individual team member (Skura & Lisicki, 2012).

The use of diverse didactic material can inspire and motivate children to act and take up challenges as well as to solve problems, becoming an important

element of the educational process. It can awaken and deepen the child's interests and natural curiosity about the world, open the child to the environment, prepare him or her for independent explorations of various fields of science and everyday life. It can also provide an opportunity to confront knowledge with practice, at the same time triggering many experiences and impressions in children (Fechner-Sędzicka et al., 2012). Creating work corners (based on Freinet's techniques of work), i.e., a well-stocked work library, source material archive, poetry corners, places with raw materials (clay, sand, stones), laboratories for research/simple experiments, spaces for presenting students' work, is a challenge but it also strengthens children's activity. The classroom should be a workshop – a space for the authentic work of both students and teachers – one which contains both the most modern and traditional materials that are accessible and safe to use by children (Kędra & Zatorska, 2014).

Methodological assumptions of own research

The results presented below constitute a fragment of broader research conducted in 2016 in Poland (Tarnów district) and Hungary (Kaposvári, Sárospatak) on the functioning of teachers in modern primary schools.

In the presented study, an attempt was made to answer questions concerning the teaching methods, forms of organizing classes and didactic aids used by early primary school teachers in selected areas.

The method used in the research was a diagnostic survey, which involved a questionnaire and interviews among teachers as research tools. Questions included in the questionnaire were semi-open with the application of scales. The research sample consisted of 200 teachers from public primary schools in Poland and 200 from Hungary. The choice of the research area and research groups was dictated by the comparable (proportional to the number of inhabitants in both countries) level of urbanization of these places.

Results of own research

The research results (Table 1) concerning the methods of working with early school age children and the assessment of their efficiency show that Polish teachers most often use the methods of independent acquisition of knowledge (77.5%) and practical methods (70.0%). The respondents are departing from verbal methods based on the assimilation of knowledge which remains mainly

in short-term memory (46.0%) in favor of the problem-solving approach to acquiring knowledge by children. However, what may cause concern is the fact that valorization methods (both impressionistic and expressive ones) are losing popularity in the educational process (43%), whereas they might otherwise constitute an interesting variant of work with children, who have a natural need for expression. The above-mentioned group of methods allows the spontaneous activity of children to be channeled. Additionally, demonstration-based methods prove to be an unattractive form of education for the Polish group. The respondents use activities from this sphere (35.5%) the least frequently, forgetting that the image for the young generation, the so-called "Google generation" or "Post-Millennials," serves as an important source of knowledge. It is difficult to establish a correlation between the respondents' educational background and the methods they use, as the number of teachers with higher vocational education is negligible, while the majority of respondents have a master's degree. On the other hand, there is a clear correlation between the length of work experience of the surveyed teachers and the chosen teaching methods. Contrary to the common belief that young teachers who are full of fresh and innovative ideas implement activating methods, it is the respondents with the relatively shortest work experience that favor traditional methods, i.e., verbal instruction. The research results indicate that precisely those Polish respondents who have the longest work experience most often use methods stimulating the independent acquisition of knowledge. These methods generate divergent thinking, desirable in modern education, which is exactly the argument used by the surveyed teachers when assessing the effectiveness of the methods applied in classes with children at early school age (72.5%). However, there are disproportions in the use of practical methods (71%) and the evaluation of their effectiveness (47%) by teachers. According to the interviewed teachers, the relatively low assessment of effectiveness may be due to insufficient time spent on practical activities. In this situation, one may ask whether the working time during classes has been properly managed by teachers and whether the number of students participating in the classes, which undoubtedly determines the use of practical activities by students, has been adequate. The Polish group of the surveyed teachers rarely uses valorization methods and assesses their effectiveness as poor (27.5%); they fail to notice their advantages connected with evoking children's emotions that are conducive to learning.

Table 1
Methods of working with children used by Polish and Hungarian teachers in early childhood education

Type of answer	Total N = No. of respondents		Educational background				Length of work experience							
			master's degree		higher vocational		1–5 years		6–12 years		13–20 years		over 20 years	
	Poland N = 200	Hungary N = 200	Poland N = 196	Hungary N = 79	Poland N = 4	Hungary N = 121	Poland N = 44	Hungary N = 11	Poland N = 46	Hungary N = 25	Poland N = 50	Hungary N = 41	Poland N = 60	Hungary N = 123
a) methods of knowledge assimilation (chat, discussion, working with books, learning according to the curriculum)	92	157	92	53	–	104	24	9	17	13	27	32	24	103
in percent	**46.0**	**78.5**	**46.9**	**67.0**	**–**	**85.9**	**54.5**	**81.8**	**36.9**	**52.0**	**54.0**	**78.0**	**40.0**	**83.7**
b) methods of independent knowledge acquisition (classical problem method, brainstorming, didactic games and recreation activities)	155	85	151	22	4	63	36	10	37	9	29	19	53	47
in percent	**77.5**	**42.5**	**77.0**	**27.8**	**100,0**	**52.0**	**81.8**	**90.9**	**80.4**	**36.0**	**58.0**	**46.3**	**88.3**	**38.2**
c) valorization methods, expository methods (impressionistic and expressive ones, e.g., dance, song, poetry recitation)	86	44	84	9	2	35	19	–	19	4	20	10	28	30
in percent	**43.0**	**22.0**	**42.8**	**11.3**	**50,0**	**28.9**	**43.1**	**–**	**41.3**	**16.0**	**40.0**	**24.3**	**46.6**	**24.3**
d) practical methods (practical exercises, e.g., compensatory tasks in mathematics, performing artistic work)	140	129	136	42	4	87	33	7	31	9	20	36	56	77
in percent	**70.0**	**64.5**	**69.3**	**53.1**	**100,0**	**71.9**	**75.0**	**63.6**	**67.3**	**36.0**	**40.0**	**87.8**	**93.3**	**62.6**
e) methods based on observation: demonstration, measurement	71	98	71	23	–	75	9	4	9	12	14	23	39	59
in percent	**35.5**	**49.0**	**36.2**	**29.1**	**–**	**61.9**	**20.4**	**36.3**	**19.5**	**48.0**	**28.0**	**56.0**	**65.0**	**47.9**

Source: own research.

The Hungarian teachers express fundamentally different opinions than the Polish ones. They prefer word-based methods in working with children (78%), though they use practical methods (64.5%) whose effectiveness they perceive as average (35.5%) as frequently as the Polish respondents. Therefore, one can ask about the conditions of implementing practical methods, since they are so poorly rated by the Hungarian respondents. Demonstration-based methods are more popular among the Hungarian group (49%), but teachers rate their effectiveness relatively low (21%). Perhaps the form and content of the shows are not suitable for a generation who find 3D/4D screenings attractive and who do not treat conventional images as an object of interest. It is worth pointing out that methods of independent knowledge acquisition (42.5%) and valorization methods (22.5%) are not included in the mainstream of methods applied while working with children in the group under study. This may be due, as the research results show, to the very low evaluation of their effectiveness (6.5% – methods of independent knowledge acquisition; 5.0% – valorization methods). In contrast to the Polish group of respondents, methods of knowledge assimilation that are assessed in the modern education system as ineffective are preferred by the Hungarian respondents with higher vocational educational background and the longest work experience. This may follow from the system of teachers' vocational training, which favors traditional methods.

The forms of work used by the Polish respondents (Table 2) concentrate mainly on individual work (63%), whose effectiveness is still assessed as average (45%), and group work (68%), which is highly valued. The Hungarian respondents, on the other hand, divide working time with children in a very proportional way between individual (58.0%), group (55.0%), collective (50.5%) and pair work (41.0%), indicating the effectiveness of all these forms. All forms of class organization are preferred by Polish teachers with the longest work experience. In the Hungarian group, work experience also determines the use of various forms of student work organization; the longer a teacher works in the profession, the greater his or her awareness in this respect. The Polish respondents with the longest work experience rated the effectiveness of group work the highest and work with the entireclass the lowest, which corresponds to the modern concept of work in schools. This indicates a reversal of the transmission form of material presentation in favor of working in smaller teams.

Table 2
Forms of class organization used by Polish and Hungarian teachers in early childhood education

Type of answer	Total :N = No. of respondents		Educational background				Length of work experience							
			master's degree		higher vocational		1–5 years		6–12 years		13–20 years		over 20 years	
	Poland N = 200	Hungary N = 200	Poland N = 196	Hungary N = 79	Poland N = 4	Hungary N = 121	Poland N = 44	Hungary N = 11	Poland N = 46	Hungary N = 25	Poland N = 50	Hungary N = 41	Poland N = 60	Hungary N = 123
a) individual work	126	116	123	37	3	79	31	8	27	11	21	25	47	72
in percent	**63.0**	**58.0**	**62.7**	**46.8**	**75,0**	**65.2**	**70.4**	**72.7**	**58.6**	**44.0**	**42.0**	**60.9**	**78.3**	**58.5**
b) group work	137	110	135	28	2	82	28	3	37	14	25	26	47	67
in percent	**68.5**	**55.0**	**68.8**	**35.4**	**50,0**	**67.7**	**63.6**	**27.2**	**80.4**	**56.0**	**50.0**	**63.4**	**78.3**	**54.4**
c) collective work	94	101	94	40	–	61	12	6	14	11	27	23	41	61
in percent	**47.0**	**50.5**	**47.9**	**50.6**	**–**	**50.4**	**27.2**	**54.5**	**30.4**	**44.0**	**54.0**	**56.0**	**68.3**	**49.5**
d) binary work – in pairs	80	82	80	27	–	55	15	2	16	7	17	15	32	58
in percent	**40.0**	**41.0**	**40.8**	**34.1**	**–**	**45.4**	**34.0**	**18.1**	**34.7**	**28.0**	**34.0**	**36.5**	**53.3**	**47.1**

Source: own research.

The teaching aids used by early childhood education teachers (Table 3) are another issue that was analyzed. The most useful for both groups are visual aids (Poland – 74.0%; Hungary – 65.0%). Equally important for the Polish respondents were audio-visual aids (78.5%), i.e., equipment such as multimedia boards and computer programs, which are rarely used by the Hungarian group. The Hungarian respondents mentioned mainly the use of traditional didactic aids (65.0%) which do not require large financial resources. The results concerning the use of computers/tablets by both studied groups seem to be interesting. Both the Polish (27.5%) and Hungarian (18.5%) respondents indicate that these aids are not used on a daily basis. In the case of Hungarian respondents, traditional aids are the domain of the youngest teachers, while computer programs are used mainly by respondents with more than 13 years of work experience. In the Polish group, teachers with the longest work experience most often use diverse aids in classes with children of early school age. When asked about the effectiveness of the aids used, the vast majority of teachers from both countries declared their level of usefulness as low. Therefore, it can be concluded that raw materials are considered most appropriate as they offer the possibility of processing, thus becoming more effective since children are at least involved in the process of creating the aids.

Table 3

Teaching aids used by Polish and Hungarian teachers in early childhood education

Type of answer	Total		Educational background				Length of work experience							
	N = No. of respondents		master's degree		higher vocational		1–5 years		6–12 years		13–20 years		over 20 years	
	Poland N = 200	Hungary N = 200	Poland N = 196	Hungary N = 79	Poland N = 4	Hungary N = 121	Poland N = 44	Hungary N = 11	Poland N = 46	Hungary N = 25	Poland N = 50	Hungary N = 41	Poland N = 60	Hungary N = 123
a) visual: school blackboard, films, drawings, photographs, illustrations, maps	148	130	144	41	4	89	32	10	30	20	33	32	53	68
in percent	**74.0**	**65.0**	**73.4**	**51.8**	**100.0**	**73.5**	**72.7**	**90.9**	**65.2**	**80.0**	**66.0**	**78.0**	**88.3**	**55.2**
b) auditory: CD recordings, radio broadcasts	107	75	107	22	–	53	21	8	25	9	22	15	39	43
in percent	**53.5**	**37.5**	**54.5**	**27.8**	**–**	**43.8**	**47.7**	**72.7**	**54.3**	**36.0**	**44.0**	**36.5**	**65.0**	**34.9**
c) audio-visual: television programs, video recordings, multimedia computer programs	157	76	154	20	3	56	36	2	36	5	33	19	52	50
in percent	**78.5**	**38.0**	**78.5**	**25.3**	**75.0**	**46.2**	**81.8**	**18.1**	**78.2**	**20.0**	**66.0**	**46.3**	**86.3**	**40.6**
d) automation: didactic machines, computers, models	55	37	53	4	2	33	12	–	17	6	8	9	18	22
in percent	**27.5**	**18.5**	**27.0**	**5.0**	**50.0**	**27.2**	**27.2**	**–**	**36.9**	**24.0**	**16.0**	**21.9**	**30.0**	**17.8**

Source: own research.

Conclusions

1. The group of Polish respondents prefer practical methods and independent knowledge acquisition in working with children of early school age, justifying their choice with their relatively high effectiveness. The Hungarian respondents rated the verbal methods of knowledge assimilation, which in Polish early school education play a supportive rather than a dominating role.
2. Both groups of respondents prefer individual and group forms of work with children to transmission of knowledge addressing the entire class.
3. The Polish teachers most often use modern multimedia as teaching aids in early childhood education, while the Hungarian respondents participating in the survey value traditional aids for their high effectiveness. The former indicate that the potential of resources available at schools is being exhausted and new solutions are being sought, which can result in a renewed interest in raw materials intended for processing.

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