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## **ANALYSIS OF THE EDUCATION PROCESS IN CATEGORIES OF COMMUNICATION ACTS**

### **ANALIZA PROCESU KSZTAŁCENIA W KATEGORIACH AKTÓW KOMUNIKOWANIA**

**Abstract:** In the article, I undertake an analysis of the education process carried out at the level of early school education, taking into account the assessment criteria of acts of communication in the form of interrogative statements. In my considerations, I refer to the results of research conducted over a period of over twenty years, limiting myself to one, but at the same time the basic aspect of the given problem – the frequency of questions formulated by teachers and students of grades 1–3. Furthermore, I am trying to answer the question whether the curriculum reforms of the Polish education system, carried out since 1999, had or still have an impact on the implementation of the educational process in everyday school practice.

**Keywords:** educational process, verbal messages, interrogative statements, frequency of formulating questions

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**Streszczenie:** W artykule podejmuję analizę procesu kształcenia realizowanego na poziomie edukacji wczesnoszkolnej, uwzględniając jako kryterium oceny akty komunikowania w formie wypowiedzi pytajnych. W rozważaniach odwołuję się do wyników badań prowadzonych przez okres ponad dwudziestu lat, ograniczając się do jednego, ale jednocześnie podstawowego aspektu podjętego zagadnienia, a mianowicie częstotliwości formułowania pytań przez nauczycieli i uczniów klas I–III. Ponadto podejmuję próbę odpowiedzi na pytanie: czy reformy programowe polskiego systemu edukacji, prowadzone od 1999 roku, miały/mają wpływ na realizację procesu kształcenia w codziennej praktyce szkolnej.

**Słowa kluczowe:** proces kształcenia, komunikaty werbalne, wypowiedzenia pytajne, częstotliwość formułowania pytań

## INTRODUCTION

For over twenty years, the stage of early school education has been the subject of my particular interests and empirical research. In these activities I have devoted special attention to the analysis of the education process understood as a sequence of events arranged in time and space, including the teacher and students, whose features are a) the purposefulness of the actions taken; b) activity of participants as a result of which they create and develop their own knowledge; c) interactivity understood as the mutual interaction between the participants of this process (Pęczkowski, 2010, pp. 102–103).

The educational process understood in this way is an example of the communication process consisting in the emergence of common meanings and the resulting interactions between the sender and the recipient thanks to the use of a system of signs (speech, graphic signs, iconography, etc.) and is implemented in a specific situational context, determined by external conditions in relation to the sender and recipient (Bander et al., 1976). In this approach, the basic element of the education process, next to the sender and recipient, is the message formulated by the teacher and students, and by this term I understand artificial information, i.e. information created to inform (Wójcik, 1969, p. 59). It can take two forms: *tool-free message* e.g. when we listen to a spoken sentence, or *tooled message* e.g. when we watch a TV program or a multimedia presentation (Wójcik, 1969, p. 52). In each lesson, messages formulated by the teacher or students perform three basic functions a) *the informative function* in which the message reflects the P in W; b) *educational function* consisting in presenting by the author of the message his/her views, attitude to reality, formulating norms and evaluations; c) *an aesthetic function*, the essence of which is to convey specific aesthetic values contained in messages (Wójcik, 1969, p. 52).

The primary activity of the teacher and students in the process of education at the level of grades 1–3 of primary school is formulating verbal messages, which take various forms. The first are *statements*, the essence of which is to convey information, to determine a certain state of affairs. The second are *interrogative statements*, and their

communicative function is to cause the recipient to react by providing the sender with information that supplements his/her knowledge about the world. The third are *demanding statements* in which the authors demand a change in the state of affairs they consider to be unfavorable, and the aim is to cause the recipient to react in order to remove this state. The fourth, in turn, are *wishing sentences or exclamations*, which constitute a loose group of verbal messages, and their characteristic feature is emotional saturation and specific intonation (Labocha, 1995, pp. 14–16). In my considerations, I will focus on one category of utterances, namely, interrogative statements.

In pedagogical practice and not only, there are a number of different terms of the category *question* (Piaget, 1929; Szuman, 1939; Pieter, 1963; Wołoszynowa, 1967; Racinowski, 1967; Kojs, 1976; Kubiński, 1971; Reut, 1992; Reber, 2000; Gabzdyl, 2009). Without going into a detailed analysis of the understanding of this concept, for the purposes of my considerations, I understand this term as an interrogative sentence expressing a lack of knowledge and a desire to remove this deficiency, as well as expressing a problematic situation felt by the inquiring person. It is also an interrogative sentence that expresses the existence of a problematic situation that the learner is to feel in order to arouse the desire to solve the problem and find answers, or it is an expression of a situation that requires the use of knowledge remembered by the student or easily available in a ready form (Okoń, 1998, p. 325). Questions belong to this form of verbal communication in which cognitive activity and the level of human development are manifested in a special way. They are an important factor in achieving human orientation – regardless of the amount of knowledge, skills and experience – in reality and gaining information about it. S. Szuman states that the question is an expression of a child's mental awakening, it is a manifestation of a new attitude of the psyche towards the surrounding reality (Szuman, 1939, p. 17). The appearance of questions is considered to be the beginning of the child's independent thinking. They ask when they encounter difficulties in understanding a phenomenon, in striving to know something unknown, to clarify doubts. At the source of the questions asked by older children is a critical reflection on facts and phenomena as well as the noticed contradiction between the information possessed and the observed state of affairs. As noted by D. Gołębnik, one of the sources of intellectual development of a student in school practice are strategies for asking questions (Gołębnik, 2003, pp. 179–181). They can be implemented in two ways. The first one is that the teacher directs questions to students, but he/she will implement his/her pro-development tasks only when the questions formulated by the teacher and directed to the students trigger the processes of independent thinking and formulating answers. In other words, instead of many very detailed questions such as “who?”, “what?”, “when?”, “where?” one should formulate questions such as “what do you think about it?”, “why?”, “how do you understand it?”, which force the student to explore the discussed problem (Śnieżyński, 2013). The other strategy is to encourage students to ask questions. Creating situations by the teacher in the course of the educational process that allow students to formulate questions is a way

to accelerate mental and social development. It is also a way of arousing students curiosity and triggering students' independent thinking. Students' ability to formulate questions is considered to be much more important than being able to answer. R. Fisher, in turn, presenting the issue of questions in the educational process, considers two of the functions of these questions to be basic, namely making the student think, i.e. questions should arouse students' curiosity and interests, shape views, emotions, experiences, direct attention and stimulate discussion. Referring to B. Bloom's taxonomy, the author describes this area as higher order thinking. The other – controlling function – to check knowledge, and more precisely questions are used to check understanding, correct knowledge, recognize difficulties and direct to new content. This area is lower order thinking (Fisher, 1999, p. 29).

Before starting systematic school education, a child experiences a period characterized by a huge number of questions about everything, first about things – “what is it?”, “what is it for?” then for the reason – “why?”. They are an expression of the need to obtain information necessary to satisfy the material needs of a child or the need to learn about the surrounding reality. A 1984 study shows that a four-year-old child on average within an hour interacts 27 times with its mother, with half of these interactions being undertaken at the child's initiative, formulating an average of 26 questions during that time (after: Fisher, 1999, p. 28). Does this natural development process, characteristic of the pre-school education period, find conditions conducive to its continuation at the level of early childhood education, or are we dealing with a completely new situation?

The research was inspired not only by the need to formulate an answer to the above question, but also by the deep structural and program changes taking place in the Polish education system, which led to the search for answers to the second extremely important question, namely: whether, and if so, to what extent, the changes introduced at the level of early school education, exemplified by the core curriculum and program pluralism, changed the image of the education process at this level of education?

## METHODOLOGY

The essence of my research was the analysis of the educational process in terms of acts of verbal communication, and more precisely in interrogative statements formulated by teachers and students during the lesson. The research was based on lesson transcripts made in the form of a written transcription of recordings of the course of the lessons recorded on a magnetic medium (tape) and a digital medium (dictaphone), while maintaining the originality of teachers and students' statements. All lessons were recorded with the teacher's consent. The first studies were carried out in 1994–1996. The next ones, following the same procedure they were carried out in the 2002–2003 school year, and the next ones in 2008–2009, 2011–2012 and

2018–2019. In the entire research cycle (1994–2018), I analyzed a total of 1813 transcripts of lessons conducted in grades 1–3 of primary school. In the first stage 412 transcripts were assessed, in the second – 405, in the third – 398, in the fourth – 384, and in the last – 214. The lower number of transcripts in the last study is mainly the result of the introduction of the GDPR provisions, which significantly limited the possibility of conducting this type of research, which resulted in a significant number of refusals to participate in the research by school principals and teachers.

Due to the limited possibilities of publication, and above all the enormity of data, in my considerations I will limit myself to only one in my opinion fundamental aspect of the research conducted. I will attempt to answer the question: how often do teachers and students formulate verbal messages in the form of interrogative statements during the lesson? and to what extent did the changes made in the years 1999 - 2018 contribute to changes in the education process at the level of early school education?

## RESULTS

In accordance with the adopted procedure, I subjected the empirical material collected in the course of the subsequent stages of the research to a comparative analysis, with the results of the research conducted in the years 1994–1996 being the reference point (Pęczkowski, 1998, pp. 55–71). Detailed figures are presented in Table 1.

**Table 1.** Number of interrogative statements asked by teachers and students during the lesson, taking into account the stage of research

STAGE	NUMBER OF INTERROGATIVE STATEMENTS								
	TOTAL			TEACHERS			STUDENTS		
	N	n	$\bar{x}$	n	%	$\bar{x}$	N	%	$\bar{x}$
1994–1996	412	24 861	60.34	22317	<b>89.77</b>	54,17	2544	<b>10.23</b>	6.17
2002–2003	405	25 712	63.49	23070	<b>89.72</b>	56,96	2642	<b>10.28</b>	6.52
2008–2009	398	25 872	65.01	23537	<b>90.97</b>	59,14	2335	<b>9.03</b>	5.87
2011–2012	384	23 956	62.38	21670	<b>90.45</b>	56,43	2286	<b>9.54</b>	5.95
2018–2019	214	13 848	64.71	12587	<b>90.89</b>	58,82	1261	<b>9.11</b>	5.89

N – number of analyzed lessons; n – number of questions;  $\bar{x}$  – average number of questions in the lesson

**Source:** author's own.

The above data clearly shows that the teacher is the person who definitely dominates verbal communication during the lesson. On average, regardless of the duration of the research, more than 60 verbal messages were formulated in the form of interrogative statements during the lesson, the teacher was the author of about 90% of these messages, while the students only about 10%. The educational process implemented

at the level of early school education appears as a series of teacher's questions and students' answers, taking the form of "teacher's question – student's answer – teacher's question – student's answer, etc." The party initiating this process is the teacher, who on average formulates an inquiry message every 35–40 seconds, expecting an immediate response from the student. The above thesis is confirmed by numerous studies conducted over several decades (Holt, 1969; Sinclair, Coulthard, 1974; Barnes, 1976; Putkiewicz, 1990; Janowski, 1990; Mieszalski, 1990; Klus-Stańska, Nowicka, 1995; Rams, 1996; Warzyński, 1996; Cackowska, 1998; Kawka, 1999; Wawrzyński-Beszterda, 2002; Chomczyńska-Rubacha, 2003; Karkowska, 2005). Interesting data was provided by the analysis of the number of question messages formulated by teachers and students, taking into account the level of implementation of early school education. Detailed data is presented in Table 2.

**Table 2.** Number of question messages formulated by teachers and students, taking into account the level of early school education

Stage	Grade 1				Grade 2				Grade 3			
	teachers		students		teachers		students		teachers		students	
	N	%	N	%	N	%	N	%	N	%	N	%
1994–1996	9449	85.85	1557	14.15	6361	90.87	639	9.13	6507	94.92	348	5.08
2002–2003	5496	86.37	867	13.63	6987	89.64	807	10.35	10987	95.08	568	4.02
2008–2009	6219	85.01	1096	14.98	7459	89.22	901	10.78	9859	96.68	338	3.31
2011–2012	5819	84.17	1112	15.82	6875	89.47	809	10.53	8976	96.09	365	3.91
2018–2019	4011	84.56	732	15.43	4981	92.60	398	8.40	3995	96.48	131	3.52

**Source:** author's own.

The data contained in Table 2 and the analysis carried out allow us to state that with the passage of time in the implementation of the education process in grades 1–3 of primary school, the student's activity in the area of interest systematically decreases. After starting school, a student who was formerly an active person by formulating a large number of questions, as a manifestation of curiosity and interest in the surrounding reality, becomes a person whose functioning in the education process is reduced to listening to and answering teacher's questions. The natural ability to formulate questions, which is the effect of mental development and cognitive interests – so characteristic of the stage of preschool education – is not used in the process of education at the level of grades 1–3. On the contrary, these needs and interests are effectively suppressed by the teacher and his tendency to dominate interactions with students. It is difficult to disagree with the view of M. Dudzikowa, who states that instead of deepening the student's ability and motivation to ask questions, we have the opposite situation at school. Students are taught that formulating questions is a sign of stupidity and bad upbringing and as a result we lead students to a state

where they stop asking questions, reinforcing this state with gruff answers, full of irony and reinforced with appropriate facial expressions (Dudzikowa, 1993).

Structural and curricular changes introduced in the Polish education system since 1999, exemplified by the core curriculum for general education, amended many times in subsequent years, and the implementation of the principle of curricular pluralism into school practice, meaning the teacher's right to choose a specific curriculum from among the curricula permitted for use or own development, not only did not change the face of early school education, but on the contrary, they perpetuated this negatively assessed state. The process of education in grades 1–3 of the school is an area of strong dominance of the teacher, while students remain passive participants of this process, and this dominance becomes more and more evident as the student's stay at school progresses.

## DISCUSSION AND CONCLUSION

Contemporary concepts of the implementation of the educational process, including the concepts of early school education, assume that the school should be the area of shaping the student as a researcher, having a reflective attitude to the surrounding reality, a student who, adequately to his/her abilities and needs, has the ability to use various techniques of learning about this reality. One of the indicators of such a school is the level of students' activity in the course of their lessons expressed by verbal messages formulated by them in the form of interrogative statements. Unfortunately, the research and analysis of the collected material, conducted for over twenty years, proves that these assumptions stand in stark contrast to everyday school practice. At the level of early school education, we are still dealing with a situation where the teacher dominates the education process. This is evidenced by the huge amount of verbal messages formulated by teachers in the form of questions. The student is only an object of the teacher's activity, and his/her role is basically only to give more or less correct answers. It is difficult to disagree with the thesis of J. Holt, who in the early 1970s stated that the educational process is a series of teacher's questions and students' answers, and the teacher is always the initiating party (Holt, 1969). It takes the form of "teacher's question – student's answer – teacher's question – student's answer – etc." This image was not changed by loud announcements of successive reformers of the Polish education system. Both the 1999 and 2016 curriculum reforms in the area of interest did not fundamentally change the implementation of the education process. This means, in my opinion, the need to start a discussion and above all another reform, taking into account the results of the research on the functioning of this element of the education system.



## REFERENCES

- Bander, R., Grinder, J., Satir, V. (1976). *Changing with Families*. Palo Alto Science and Behavior Books.
- Barnes, D. (1976). *From Communication to Curriculum*. Harmondsworth Penquin.
- Cackowska, M. (1998). Komunikacja jako wyznacznik system nauczania. In R. Mrózek (ed.), *Kultura. Język. Edukacja*. Vol. 2. Katowice.
- Chomczyńska-Rubacha, M. (2003). Szkolne środowisko uczenia się. In Z. Kwieciński, B. Śliwerski (eds.), *Pedagogika*. Vol. II. Warszawa.
- Dudzikowa, M. (1993). Stawianie pytań służy rozwojowi. *Nowości Oświatowe*, 5.
- Fisher, R. (1999). *Uczymy jak się uczyć*. Warszawa.
- Gabzdyl, J. (2009). O modalności (nauczycielskich) pytań i poleceń. *Chowanna*, 52 (65).
- Gołębniak, D. (2003). Nauczanie i uczenie się w klasie. In: Z. Kwieciński, B. Śliwerski (eds.), *Pedagogika*. Vol. II. Warszawa.
- Holt, J. (1969). *How Children Fail*. Harmondsworth Penquin.
- Janowski, A. (1990). *Psychologia społeczna a zagadnienia wychowania*. Wrocław.
- Karkowska, M. (2005). *Nauczyciel i uczeń. Interakcje a wartości w klasie szkolnej. Analiza etnograficzna*. Kraków.
- Kawka, M. (1999). *Dyskurs szkolny. Zagadnienia języka*. Kraków.
- Klus-Stańska, D., Nowicka, M. (1995). Komunikacja na lekcjach w klasach początkowych jako nieuchronne wprowadzanie w transmisyjny model edukacji. In: A. Jopkiewicz (ed.), *Edukacja i rozwój*. Kielce.
- Kojs, W. (1976). Zadania dydaktyczne w nauce własnej. In: J. Zborowski (ed.), *Nauka własna studenta*. Warszawa.
- Kubiński, T. (1971). *Wstęp do logicznej teorii pytań*. Warszawa.
- Labocha, J. (1995). *Gramatyka języka polskiego*. Vol. III. Kraków.
- Mieszalski, S. (1990). *Interakcje w klasie szkolnej. O społecznym funkcjonowaniu nauczyciela i uczniów w szkole podstawowej*. Warszawa.
- Okoń, W. (1998). *Nowy słownik pedagogiczny*. Warszawa.
- Pęczkowski, R. (2010). *Funkcjonowanie klas łączonych w polskim systemie edukacji*. Rzeszów.
- Pęczkowski, R. (1998). Pytanie jako forma komunikacji dydaktycznej w nauczaniu początkowym. Próba diagnozy. In W. Kojs, R. Mrózka (eds.), *Komunikacja. Dialog. Edukacja*. Cieszyn.
- Piaget, J. (1929). *Mowa i myślenie u dzieci*. Lwów – Kraków.



- Pieter, J. (1990). *Słownik psychologiczny*. Wrocław.
- Putkiewicz, E. (1990). *Proces komunikowania się na lekcji*. Warszawa.
- Racinowski, S. (1967). *Pytania i odpowiedzi*. Warszawa.
- Rams, T. (1996). Logika pytań w nauczaniu matematyki. *Matematyka*, 5.
- Reber, A.S. (2000). *Słownik psychologiczny*. Warszawa.
- Reut, M. (1992). Pytanie – nauczanie problemowe – dialog. In J. Rutkowiak (ed.), *Pytanie, dialog, wychowanie*. Warszawa.
- Sinclair, J.M., Coulthard, R.M. (1974). *Towards an Analysis of Discourse. The English used by teachers and pupils*. Oxford University Press.
- Śnieżyński, M. (2013). Rola i znaczenie pytań w szkolnej edukacji. *Edukacja Elementarna*, 29 (3).
- Szuman, S. (1939). *Rozwój pytań u dziecka*. Warszawa – Wilno – Lublin.
- Wawrzyniak, R. (1996). Język w klasie szkolnej – między uprzedmiotowieniem a emancypacją. In M. Dudzikowa (ed.), *Nauczyciel – uczeń. Między przemocą a dialogiem: obszary napięć i typy interakcji*. Kraków.
- Wawrzyniak-Beszterda, R. (2002). *Doświadczenia komunikacyjne uczniów w czasie lekcji. Studium empiryczne*. Kraków.
- Wójcik, T. (1969). *Prakseosemiotyka. Teoria optymalnego znaku*. Warszawa.
- Wołoszynowa, L. (1967). *Rozwój i wychowanie dzieci w młodszym wieku szkolnym*. Warszawa.

