

ICHEU 2021
International Conference «Humanity in the Era of Uncertainty»

**OPTIMIZATION OF PEDAGOGICAL INTERACTION OF
SUBJECTS OF EDUCATIONAL PROCESS IN PRIMARY
SCHOOLS**

Elina Mironova (a), Alexander Morozov (b)*, Sergey Pashkin (c), Irina Ganicheva (d),
Irina Larina (e)
*Corresponding author

(a) Yeletsky State University named after I. A. Bunin, Yelets, Russia, elina_mironova@mail.ru

(b) Research Institute of the Federal penitentiary service of Russia, Moscow, Russia, doc_morozov@mail.ru

(c) Russian State Pedagogical University named after A. I. Herzen, St. Petersburg, Russia, sergejppashkin@mail.ru

(d) National Research State University of Nizhny Novgorod named after N. I. Lobachevsky, Arzamas branch,
Arzamas, Russia, ganicheva-irin@mail.ru

(e) Yeletsky State University named after I. A. Bunin, Yelets, Russia, ira200967.1967@mail.ru

Abstract

Educational actions in their totality form an educational process, and each educational action represents the influence of the teacher on the child's personality in order to form value orientations and personality qualities, change the style of his attitude to himself and others, behaviour and beliefs. Feedback that always accompanies pedagogical interaction informs the teacher about the nature of changes in the student under the influence of communication with him in various activities and, in addition, allows the teacher to change the nature of communication with the child, to correctly build their interaction with him. Despite the fact that there is already a large set of means of developing communication skills, the problem of developing means of developing communication skills, means of improving the effectiveness of pedagogical interaction between a teacher and children remains very relevant. The purpose of the study is to develop ways to optimize the interaction of a teacher with children in primary schools.

2357-1330 © 2021 Published by European Publisher.

Keywords: Pedagogical interaction, dialogue, teacher, educational process, children



1. Introduction

Pedagogical interaction is a professional communication between a teacher and students in the process of teaching and upbringing in the classroom and outside the classroom, which has certain pedagogical functions and is aimed at creating a favourable psychological climate, optimizing educational activities and relations between the teacher and students (Leontiev, 1996).

The scientific community pays close attention to the formation of interpersonal interaction, studies and rethinks the pedagogical experience to solve this problem in educational practice (Bashkireva et al., 2020; Bodalev, 2002; de las Heras et al., 2021; Donker et al., 2021; Efimova & Belolipetsky, 2010; Hagopyan et al., 2021; Hsu, 2015; Kolominsky, 2003; Morozov, 2013; Peter, 2019; Suci, 2014; Sun et al., 2019; Timmermans et al., 2019; Van der Lans et al., 2020; Zimnaya, 2010).

The analysis of psychological and pedagogical literature has shown that the effective interaction of the teacher and the child in pedagogical activity is the main condition for the success and satisfaction of the teacher with his work. However, the interaction of the teacher with children in the process of education remains insufficiently effective.

2. Problem Statement

The main direction of our work is to find ways to optimize the process of interaction between a teacher and children.

3. Research Questions

To achieve the goal of our research, we:

- studied the nature of interaction between adults and children in the educational process;
- got acquainted with the teachers' ideas about the peculiarities of their own interaction and the style of communication with children;
- revealed the prevailing forms of communication between children and adults.

4. Purpose of the Study

The purpose of the study is to develop ways to optimize the interaction of a teacher with children in primary schools.

5. Research Methods

Research methods are literature analysis, experiment, observation, testing, conversation, content analysis.

6. Findings

The main condition for the success and satisfaction of the teacher with his work is his effective interaction with the child in teaching activities. Interaction «... is an important channel through which the

social organization of the behaviour and personality of pupils is carried out, so that any situation becomes more or less a situation of teaching and upbringing» (Shein, 1991, p. 44).

The means of pedagogical influence are a word, a facial expression, an act, an action. The effectiveness of the impact depends on the characteristics of those who are affected and who are affected, on the situation in which the pedagogical impact is carried out, as well as on the choice of means of influence, the purpose of influence presented by the teacher, and, of course, on the nature of the relations between the interacting people.

An interaction situation is a situation where one person influences another, and therefore the effect of the influence is usually associated with the nature of the features that exist in both one and the second person, i.e., in the teacher and the child.

Thus, the problem of psychological impact on the child can be effectively solved only if the impact is a process of interaction with the child, in which both sides change, i.e. the impact will have a positive result if the educator enjoys the trust of the children. One is able to understand from the reaction of the children how the children he is going to influence, perceive and evaluate his personality, and the assessment of the effectiveness of the action should concern not only changes in the child's behaviour, but also changes in the teacher's personality. Obviously, the main means of interaction will be communication with the child in the organization of various activities.

To study the nature of the interaction of an adult with children, we used the method of observation using a map developed on the basis of modern standard requirements for the activities of a teacher. The map includes moments of interaction that allow you to evaluate the features of communication between an adult and a child. The card was filled in for each teacher. The observation was carried out for 5-7 minutes three times; the results of the observation were recorded in the corresponding column (1st measurement, 2nd measurement or 3rd measurement). At the end of the observation, each indicator was evaluated according to the following system:

- 1 point - there is almost no evidence;
- 2 points - there is some evidence;
- 3 points - there is significant evidence that the criterion is met.

The results obtained were the basis for individual work with each teacher. They allowed us to say that the level of interaction between teachers and children, on the one hand, has an individual expression: min=1.8; max=2.2, on the other hand, does not reach the ideal indicator (3) in any subject.

To study the style of pedagogical communication, the method of Shein (1991) was used, which allows one to diagnose the psychological features of professional communication based on the views of the teachers themselves. The style of communication is differentiated by eight initial parameters, each of which is evaluated by four questions, respectively combined into 8 groups of qualities.

The initial characteristics are evenly distributed over 8 personal parameters:

- 1st - leadership trends,
- 2nd - self-confidence,
- 3rd - demanding of others,
- 4th - negativism,
- 5th - compliance,

- 6th - dependence on others, need for support,
- 7th - accessibility to the influence of others, uncritical compliance,
- 8th - responsiveness.

Each recorded approval number corresponds to one score. The number of points scored can vary for each of the eight parameters from zero to four. The personality assessments obtained for the eight groups of qualities are summarized by the vertical factor of the status-role orientations «Dominance –Submission» and by the horizontal factor of the behaviour style «Cooperation – Aggression».

The positive value of the result obtained by the formula for the vertical factor indicates a pronounced desire of the individual for dominance, leadership in communication, and the negative result indicates a tendency to submission, rejection of leadership and responsibility.

The positive value of the result according to the horizontal factor indicates the desire of the individual to cooperate with others, to establish friendly relations, and the negative value reveals the predominance of an aggressive and competitive orientation that destroys joint activities, hinders cooperative relations (See in Table 1).

The numerical values of the results obtained show the quantitative degree of severity of the corresponding trends.

Table 1. Prevailing communication styles at the ascertaining stage of the experiment

Subjects	Communication style
A	Conformal
B	Conformal
C	Reflexive-manipulative
D	Reflexive-manipulative
E	Authoritarian-monologue
F	Perfect
G	Confidential-dialogical
H	Altruistic

These results indicate that only one teacher has formed a communication style that ensures the effectiveness of interaction – trust-dialogic. Other teachers use ineffective communication styles to varying degrees.

The results obtained allowed us to determine the directions of the necessary changes in the style of communication of the teacher with children.

At the second stage of our work, we had to develop recommendations for optimizing the interaction of teachers with children and include the planned development actions in the schoolwork plans.

The basis of the program, which helps to optimize the process of interaction of teachers with children of primary school age, is the following provisions:

1. To change the ineffective communication style of individual teachers, it is necessary to create appropriate motivation.
2. The development of reflexive abilities in teachers will contribute to the conscious use of communication techniques and techniques at the first stages, which can be automated in the future.

3. Changing the role position of the teacher will contribute to a better understanding of the students and ultimately will optimize the process of interaction.

4. To ensure the possibility of changing the role position of the teacher, appropriate activities are necessary.

The program for optimizing the interaction of teachers with children of primary school age includes:

1. Collective periodic discussion of video recordings of the interaction of each individual teacher with children of primary school age in various situations.

2. The inclusion in the educational process of game classes, which are, for example, the dramatization of fairy tales known to children and stories composed by them.

First, the video recording of the moments of interaction between teachers and primary school children in various situations was carried out.

After passing the habituation stage, a total of 20 minutes was recorded for each teacher. Teachers who participated in the experiment took part in viewing the collected material and discussing it. They were able to record and evaluate their reactions from the outside, since it is more difficult to do this during communication when focusing on the situation, communicative action. The implementation of the analysis of the interaction process recorded on video reveals to the teacher the possibilities of such analysis and trains in its implementation.

Thus, on the one hand, this contributes to the development of reflexive abilities in teachers, on the other hand, fixing shortcomings in the interaction between the teacher and his colleagues creates the necessary tension for self-change and the necessary level of motivation.

During the discussion, teachers gradually became convinced of the need to change the forms of interaction and include new types of activities in the educational process. They proposed a program developed by Zakharov (2006) for the correction of fears in children.

After analysing this program, we used it in a slightly modified version to allow the teacher to change the role position.

We recommended building play classes-dramatizing famous fairy tales - in order to unite children, improve their interaction, and develop role-playing communication functions. We selected age-appropriate fairy tales that were read every other day for 30 minutes. If possible, musical accompaniment was provided. During the reading, the teacher turned to the children with a request to advise how to act to a particular character, what awaits him, how the fairy tale will end, etc. Children became participants in fairy-tale events, actively expressing their attitude to the characters. Such game sessions were also recorded on video and then discussed.

At the final stage, a cross-section was carried out using the methods that were used at the first stage of the experiment (observation, the method of S. A. Shein). A comparison of the obtained indicators with the indicators before the experiment allowed us to conclude that there is a clear tendency to improve the nature of the teacher's interaction with children, i.e., to improve the quality of the teacher's interaction with children. After the experiment, the indicators of the nature of interaction between teachers and children significantly improved: in the subjects who had the lowest values in the sample at the beginning of the experiment, they reached the level corresponding to the maximum values in the sample at the beginning of

the experiment. Positive changes are noted in each subject. The maximum changes are 0.4 points; the minimum changes are 0.2 points.

As can be seen from the results of the study of communication styles according to the method of S. A. Shein, certain changes in the style of communication with children occurred in individual subjects. These changes are positive.

Table 2. Distribution of communication styles at the control stage of the experiment

Subjects	Communication style
A	Perfect
B	Conformal
C	Trust-dialogic
D	Trust-dialogic
E	Reflexive-manipulative
F	Trust-dialogic
G	Trust-dialogic
H	Altruistic

The analysis of the obtained data allowed us to conclude that in three more subjects, the style of communication with children acquired the character of «trust-dialogic», which is optimal for the pedagogical process, and, thus, the sample of teachers with this prevailing style of communication reached 50%. In the positive direction, there were changes in another subject, but they did not reach the highest level (the authoritarian style was replaced by a reflexive-manipulative one) (See Table 2). In addition, the altruistic and conformal styles of the two subjects were preserved. This can be explained by the fact that it is easier to change behaviour than to change the established style of communication.

7. Conclusion

The use in the educational process of the program developed by us to optimize the interaction of teachers with children of primary school age leads to positive changes in the nature of the interaction of the teacher with children of primary school age.

The results of the experimental work indicate that the indicators of the nature of interaction between teachers and children have significantly improved: the subjects who had the lowest values in the sample at the beginning of the experiment reached the level corresponding to the maximum values in the sample at the beginning of the experiment. Positive changes were noted in each subject. Some of the subjects had positive changes in their communication style with children.

Optimization of the process of interaction of the teacher with children is ensured by the use of such forms of work that involve the change of the role position of the teacher in combination with the development of his reflexive abilities, which ultimately leads to positive changes in the interaction of the teacher with children.

The pedagogical process is based on the interaction of the teacher and the student. The effectiveness of learning depends not only on the abilities of the student, the teacher's skills, with which he builds

pedagogical interaction, but also on the teacher's choice of such a style of communication with students that would take into account their individual characteristics, would contribute to the conscious mastery of the subject.

All this suggests that the teacher's communication with children should be taught even before he comes to school. Gradually, experience is accumulated in teaching students to communicate productively in training groups specially created for this purpose, in which the fundamental task of identifying the individual style of the teacher is solved instead of imposing ready-made and impersonal behaviour algorithms, standard recipes for a stencil set of repetitive pedagogical situations.

References

- Bashkireva, T. V., Bashkireva, A. V., Morozov, A. V., Evdokimova, A. I., & Apsit, M. A. (2020). Conditions for Digitalization of Education and Related Health Problems of Students. *Advances in Economics, Business and Management Research*, 156, 159-162.
- Bodalev, A. A. (2002). *Psychology of communication: selected psychological works*. Voronezh: MODEK.
- de Las Heras, S. C., Gargalo, C. L., Weitze, C. L., Mansouri, S. S., Gernaey, K. V., & Krühne, U. (2021). A framework for the development of Pedagogical Process Simulators (P2Si) using explanatory models and gamification. *Computers & Chemical Engineering*, 151, 107350.
- Donker, M. H., Wemde, L., Hessen, D. J., Gog, T., & Meinhard, T. (2021). Observational, student and pedagogical perspectives of interpersonal behavior of a teacher: common and unique associations with the emotions of a teacher and a student *Learning and Instruction*, 73, 101414.
- Efimova, D. V., & Belolipetsky, V. (2010). Dialogical interaction in the pedagogical environment as an indicator of the professional competence of a teacher. *Sociosphere*, 1.
- Hagopyan, G., & Noriya, G., & Noriya, R. (2021). When the student becomes the teacher: Discovering individual teaching style. *Currents in Pharmacy Teaching and Learning*, 13(2), 177-180.
- Hsu, W. -H. (2015). Transitioning to a communication-oriented pedagogy: Taiwanese university freshmen's views on class participation *System*, 49.
- Kolominsky, Ya. L. (2003). *Social psychology of the school class*. LLC «FOIA Inform».
- Leontiev, A. A. (1996). *Pedagogical communication*. Moscow; Nalchik: Publishing Center «El-Fa».
- Morozov, A. V. (2013). *Social psychology*. Academic Project.
- Peter, T. (2019). Teaching for the 21st century: A case for dialogic pedagogy *Learning Culture and social interaction*, 21, 170-178.
- Shein, S. A. (1991). Dialogue as the basis of pedagogical communication *Questions of psychology*, 1, 44-52.
- Suciu, L. (2014). The Role of Communication in Building the Pedagogical Relationship *Procedia-Social and behavioral Sciences*, 19, 4000-4004.
- Sun, X., Pennings, H. J. M., & Wubbels, T. (2019). Teacher interpersonal behavior in the context of positive teacher-student interpersonal relationships in East Asian classrooms: Examining the applicability of western findings *Teaching and Teacher Education*, 86.
- Timmermans, A. S., Gretje van der Werf, M., & Ruby-Davies, K. M. (2019). Interpersonal character of teacher expectations: Perceived relations between a teacher and a student as a precursor to teacher recommendations *Journal of School Psychology*, 73, 114-130.
- Van der Lans, R. M., Kremers, J., Klagkist, I., & Zvart, R. (2020). Teachers' interpersonal relationships and teaching experiences: How are they related? *Studies in Educational Evaluation*, 66, 100902.
- Zakharov, A. I. (2006). *Play as a way to overcome neuroses in children*. KARO Publishing House.
- Zimnaya, I. A. (2010). *Educational psychology*. MODEK.