

## PEDAGOGICAL INTROSPECTION AS A PROFESSIONAL THINKING PROPERTY OF A FUTURE TEACHER

(<https://orcid.org/0000-0002-3701-0494>) Svetlana S. Velikanova 1  
 (<https://orcid.org/0000-0001-6763-4903>) Vladislav V. Alontsev 1  
 (<https://orcid.org/0000-0002-7645-0177>) Oksana V. Franchuk 1  
 (<https://orcid.org/0000-0002-0764-0903>) Olga V. Andreeva 1  
 (<https://orcid.org/0000-0003-1195-5032>) Olesya A. Golubeva 1  
 (<https://orcid.org/0000-0002-4439-0915>) Oksana P. Chernykh 2

1 Nosov Magnitogorsk State Technical University, 38 Lenin Avenue, 455000, Chelyabinsk Region, Magnitogorsk, Russia, email: info@ores.su

2 Moscow University of Finance and Law MFUA, 17/1 Serpukhov Val str., 115191, Moscow, Russia, email: russia@prescopus.com

**Abstract:** *The paper is devoted to the issue of pedagogical introspection as a professional thinking property for students of pedagogical fields of education of universities. Based on the works of S. Yu. Stepanov, I.N. Semenov, A.A. Bodalev, Yu. M. Orlova, N.I. Gutkina and other Russian researchers, the authors of the paper specified the types of pedagogical reflection, their corresponding skills and the types of training tasks associated with them that can be used in the training of future teachers. The paper also presents the author's complex of pedagogical conditions that ensure the development of pedagogical reflection in students of pedagogical specialties. The complex includes the following components: creating a favourable emotional atmosphere in a classroom with students; the use of a system of didactic techniques aimed at bringing students to a reflective position; the use of reflective pedagogical technologies in the educational process of a university, contributing to the development of pedagogical reflection of future teachers and improving the quality of their education. The paper also describes the results of experimental work, which confirmed the effectiveness of the developed set of pedagogical conditions that ensure the development of pedagogical reflection in students of pedagogical specialties.*

**Keywords:** *introspection, pedagogical introspection, students of pedagogical specialties, self-development, reflective pedagogical technologies.*

### INTRODUCTION

#### *Introduction to the problem*

At present, in order to be successful in the professional field, teachers, in addition to a certain amount of knowledge, skills, must master the ability to independently plan, analyse and control their activities, set new educational tasks for themselves and solve them, be interested in self-development and capable of it. The development of pedagogical reflection of future teachers is the basis for improving the important qualities of a modern personality: an active life position, introspection, and respect for another person, independence, enterprise and competitiveness in the labour market.

### *Relevance of the problem*

The relevance of the problem of the development of pedagogical reflection in students of pedagogical specialties is determined by the following factors:

- modernization of higher education in connection with a change in the paradigm of development of higher education and the need to improve the quality of education;
- increasing the role of psychological and pedagogical training of future teachers due to changes in the requirements for their professional qualities, which will ensure competitiveness in the labour market and, accordingly, the effectiveness of future professional activities;
- the need to develop among students of pedagogical specialties the skills to independently plan, analyse and control their professional activities, that is, to carry out pedagogical reflection.

### *Problem study*

Understanding introspection (from the Latin reflexio word - referring back) as a process of self-knowledge by the subject of internal mental acts and conditions, we note that the reflection concept arose in philosophy and originally meant the process of thinking of an individual about what is happening in his own consciousness. The English philosopher J. Locke was the first to use the “introspection” concept implying by it the process (and experience) due to which the accumulation and receipt of new ideas occur. G. Hegel divided reflection into subjective (associated with self-awareness) and objective (associated with practical activity). In the 20th century, M.K. Mamardashvili, G.P. Shchedrovitsky, A.P. Ogurtsov, D. Dewey, J. Piaget, K. Levin, D. Kolb, and other Russian and foreign researchers tried to implement a philosophical study of the reflection concept in the context of the consciousness and activity problem. In the psychological and pedagogical literature, introspection is considered from different points of view: as a professionally important quality of a teacher (V.I. Zagvyazinsky, V.V. Kraevsky, etc.); as a component of teacher training (I.I. Ilyasov, I.L. Mozharovsky, etc.); as a component of pedagogical creativity (V.A. Kan-Kalik, I.Ya. Lerner, N.D. Nikandrov, etc.). The analysis of the current situation features in the educational system allowed the authors to conclude that it is necessary to develop introspection among students of pedagogical specialties. A study of the scientific literature showed that in recent decades, ideas for the development of pedagogical introspection have been developed in the theory and practice of education both in Russia (N.G. Alekseev, V.V. Davydov, I.A. Zimnyaya, V.V. Rubtsov, V. A. Slastenin, et al.) and abroad (Gore, Hatton & Smith, Korthagen). However, to date, introspection as a pedagogical category has not been studied sufficiently deeply and its constructive nature in the activities of the future teacher in an ever-changing educational situation has not been fully disclosed. The noted circumstance has determined the choice of the paper’s topic.

### *Hypothesis*

The development of pedagogical introspection among students of pedagogical specialties will be successful upon the implementation of the following complex with several conditions:

1. Creating a favourable emotional atmosphere in classrooms with students;

2. The use of a system of didactic techniques aimed at bringing students to a reflective position;

3. The use of reflective pedagogical technologies in the educational process of the university, contributing to the development of pedagogical introspection of future teachers and improving the quality of their education.

## METHODS

The authors developed the idea of developing pedagogical introspection of students of pedagogical specialties on the principles of consistency, activity, humanization, individualization, feedback, reflective activity and problematization. The work is based on the following methods: theoretical (analysis, generalization, systematization, synthesis, modelling) and empirical (conversation, observation, quantitative and qualitative analysis of research results, testing).

## MAIN PART

Based on the fact that the presence of introspection, firstly, allows individuals to consciously plan, regulate and control their thinking; secondly, allows them to evaluate the logic and correctness of thoughts; thirdly, it improves the results of solving practical problems, the second paper concludes on the reflective nature of pedagogical activity. Based on the work of S.Yu. Stepanova, I.N. Semenova, A.A. Bodaleva, Yu. M. Orlova and other Russian researchers, the authors of the paper specified the types of pedagogical introspection, their corresponding skills and the types of training tasks associated with them that can be used in the training of future teachers:

1. Personal introspection is associated with self-awareness and self-determination of a personality of pedagogical specialty students. It is engaged in exploration of the subject's own actions, the images of his\her own self as individuality and relates to self-knowledge.

2. Intellectual reflection, the basis of which is control-evaluative, critical consideration by students of the features of their mental actions aimed at finding solutions to teaching and educational problems.

3. Communicative introspection is based on the analysis of interpersonal relationships that develop between all participants in the educational process at both the school and the university. It acts as the most important component of communication and interpersonal perception, which is characterized as a specific quality of man cognition by man. Communicative reflection based on the analysis of the actions, behaviour, emotions and reactions of subjects of education, is associated with the ability to "take the place of another person", understanding the reasons for the actions of another person in the process of interaction, analysis of experienced situations and taking into account the actions of other people in their behavioural strategies.

4. Cooperative introspection is based on owning by students the ways of organizing interaction with subjects of the educational process. It is expressed in such skills as: the ability to navigate in the current professional situation, the ability to take responsibility for what is happening in the team, the ability to carry out step-by-step organization of activities, and the ability to check received performance against set objectives.

The implementation and creating a favourable emotional atmosphere in a

classroom with students requires active action on the part of their teacher. The last needs to organize the educational process so that it helps to increase the level of students' motivation in mastering pedagogical activity and creates situations of success both in mastering the material studied and in interpersonal communication. Positive motivation contributes to the creation of a dialogical environment in the audience, involves the mutual respect between a teacher and a student, and a high level of communication. The following types of educational work can become the basis for creating a favourable emotional atmosphere in training sessions with students: involving all students in the educational activity; the creation of non-standard situations in classroom; demonstration of the achievements of each student in each practical lesson; providing an opportunity for each future teacher to prove him/herself; differentiation of homework, giving it a creative character.

The development of pedagogical introspection among students of pedagogical specialties involves the use of a system of didactic techniques aimed at bringing students to a reflective position. Based on their many years of experience working with students of pedagogical specialties, the authors identified the most effective didactic techniques, the use of which in training sessions contributes to the development of pedagogical introspection among students. Those include:

"Reflection Questionnaire" consisting of questions developed by the teacher and forcing students to think over the necessary questions, for example: "What do I know?", "What can I do?", "What are my difficulties?" This technique can help future teachers become aware of themselves as subjects of educational activities. You can use such a questionnaire as you study the subject blocks and at the end of the study of the discipline. Questioning gives the teacher the opportunity to have real and detailed feedback with each student, and the students can reflect on themselves and their activities.

"Reflective map" which is a variant of graphic reflection. Students are encouraged to draw a graph of changes in their own interest (level of knowledge, personal activity, and self-realization). Carrying out reflection on reflective maps provides rich material for analysis and adjustment by the teacher of the educational process of preparing future teachers.

"Self-diagnosis sheet on the topic of the lesson". At first, the students learn about the contents of the self-diagnosis sheet (for example, an individual tree of success), and then with the help of conventional signs they show how this or that fragment of the topic turned out to be accessible and learned. Thus, the teacher and students receive information for corrective work in subsequent classes.

"Complete the phrase." The teacher pronounces the incomplete phrase and points to the participant who invites him to complete it. For example: "The topic made me think about...", "During the lesson I especially liked...", "During the discussion I acquired...", etc.

"Keyword". Students are invited to write one word with which they associate the content of the past lesson, after which a brief analysis of the results is carried out by the teacher or the students themselves.

Summary, essay, or mini-essay. Future teachers are invited to write small texts on the topics: "How I evaluate the results of the seminar", "What gave me participation in the project", "My thoughts about my work in this module of the discipline", etc. Reception "Table" - preparation of the final table after meeting with new information. The table includes the columns "Learning concept", "I knew before", "I learned in class", "I want to know". An observation sheet for the process of group work; it helps students to record conclusions about the effectiveness of their

activities. For example, to name three points that they did well during the lesson or suggest one action that will improve their work at the next seminar. The development of pedagogical introspection among future teachers is associated with the use of reflective pedagogical technologies in the educational process of a university. Educational technologies built with the help of reflective interaction mechanisms in the “teacher-student” system help learners to master the methods of conscious analysis, design and solution of problems, as well as adequate self-assessment of their own actions. These are technologies based on such thinking mechanisms as awareness, self-criticism and self-evaluation, form the intellectual skills of future teachers and strengthen reflective mechanisms in their educational activities. The work carried out by the authors to study the effectiveness of reflective pedagogical technologies in the training of future teachers showed that the greatest effect is achieved using technologies such as:

- Design technology, which involves changing priorities from the assimilation of ready-made knowledge to the active and independent cognitive activity of each student. Design technology is focused on the independent activities of students: individual, pair or group, which are performed by students for a certain period. This technology involves students solving a creative research problem with a previously unknown result, aimed at obtaining a specific result related to professional and pedagogical activity.

- Case is a technology which advantage is the ability to optimally combine theory and practice in teaching future teachers. Since research cases are used as a model for gaining new knowledge about the pedagogical situation and possible ways of behaviour in it, case technology allows students to develop creative skills in working with various sources of information and develops skills related to independence and introspection.

- Portfolio technology related to the collection and analysis of information about the learning process and the learning outcomes of students. For future teachers, the technology is an organizer of their educational activities, for a teacher, it is a means of feedback and an assessment tool. Several types of portfolios are known: portfolio of achievements, report portfolio and self-evaluation portfolio which is of most interest to our work. It includes self-evaluation of students concerning their achievements and their attitude to future professional activities; results of psychological tests that help in self-determination; creative works, essays and projects; and all that the students themselves want to put in, believing that those data reflect their personality.

The effectiveness of the developed set of conditions ensuring the development of pedagogical reflection among students of pedagogical specialties was confirmed as a result of experimental work carried out during 2015-2019.

## RESUME

In the process of the pilot work, we obtained the following results:

1. The domestic and foreign experience in the development of pedagogical introspection of students of pedagogical specialties is systematized.

2. The specificity of the pedagogical introspection development for future teachers has been clarified, its types, skills and associated types of learning tasks that can be used in the training of future teachers have been clarified.

3. The author’s complex of conditions was tested and introduced into the educational process, ensuring the development of pedagogical introspection among

students of pedagogical specialties. Testing of the claimed complex of conditions took place in the form of a formative experiment, in which 100 students of pedagogical specialties of full-time education divided into control and experimental groups took part. The following methods were used in the study: the methodology for determining the reflection development level (A.V. Karpov), the methodology for studying the motivation for learning at a university (T.I. Ilyina), the methodology for studying the motivation for professional activity (K. Zamfir, A.A. Rean), as well as authoring questionnaires and questionnaires. During the experimental work, results were obtained that indicate that the level of development of pedagogical introspection among future teachers in the experimental group has increased. So, before conducting experimental work, a low level of pedagogical introspection was diagnosed in 30% of students; after - in 15 % of students. The number of students with a high level of development of pedagogical introspection has increased - from 10% to 35 %. In the control group, the pedagogical introspection development level for students practically did not change.

4. The results of the application of the developed set of conditions for the development of pedagogical introspection of future teachers were monitored while students undergo pedagogical practice at school. The study showed that the students with whom the work on the development of pedagogical introspection was carried out made fewer mistakes in building the subject - subjective relationships with students, better established contact with the class and more effectively analysed the results of the work.

All of the above allows us to draw the following conclusion: the development of pedagogical introspection among students of pedagogical specialties will be effective when the following set of conditions is realized: creating a favourable emotional atmosphere in studies with students; the use of a system of didactic techniques aimed at bringing students to a reflective position; the use of reflective pedagogical technologies in the educational process of a university, contributing to the development of pedagogical introspection of future teachers and improving the quality of their training, which confirms the hypothesis put forward by the authors.

## CONFLICT OF INTEREST

The authors confirm that the data presented do not contain a conflict of interest.

## REFERENCES

1. Neretina T.G., Klevesenkova S.V. (2017). Education of family values at students through the means of exhibition "Human Potential of Russia". Humanitarian and pedagogical research. - Magnitogorsk: Publishing house of G.I. Nosov Magnitogorsk State Technical University,.Vol. 1. Number 1. Pp. 50-54. [in Russian].
2. Karpov A.V. (2004). Psychology of reflexive mechanisms of activity. - M.: Publishing house "Institute of Psychology RAS", - 257 p. [in Russian].
3. Klarin M.V. (1994). Innovative models of teaching in foreign pedagogical searches. - M., 231 p. [in Russian].
4. Ladenko I.S. (1989). Reflection in science and education. - Novosibirsk: IIFFSO, -- 254 p. [in Russian].
5. Mamardashvili M.K. (1996). Need for self. - M., -- 256 p. [in Russian].
6. Polyakova O.O., Lushkina M.P. (2011). Features of the professional identity of modern

- students. Herald of Moscow State University, 2: 69-73. [in Russian].
7. Sarantsev G.I. (2016). Harmonization of professional training of a bachelor in the direction of "Pedagogical education". Integration of education, 2: 211-219. [in Russian].
  8. Stepanov S.Yu., Pokhmelkina G.F., Koloshina T.Yu., Frolova T.V. (1991). The principles of reflexive psychology of pedagogical creativity. Psychology Issues, 5. [in Russian].
  9. Strelkov V.I. (2007). Experimental design of a teacher's professional environment. Human Ecology, 6: 25-29. [in Russian].
  10. Khayrulloev Zh. R. (2005). Formation of personality self-actualization in a professional orientation. Integration of Education, 3: 156-160. [in Russian].
  11. Arokiasamy, A., Hon, Tat. H., & Abdullah, A. (2013). The effects of rewards system and motivation on job satisfaction: Evidence from the education industry in Malaysia. World Applied Sciences Journal, 24 (12): 1597-1604. [in English].
  12. Clark, A. (1997). Job satisfaction and gender: Why are women so happy at work? Labour Economics, 4: 341-372. [in English]
  13. Korthagen Fred A.J., Kessels Jos P. A. M. (1999). Linking theory and practice: changing the pedagogy of teacher education. Educ. Res, 28(4). [in English]
  14. Akulova I.S., Velikanova S.S., Plotnikova E.B., Khakova G.S., Chernykh O.P., Chernobrovkin V.A. (2016). Experiences of tolerance: historical and philosophical analysis of multiculturalism (on the example of magnitogorsk, russia)//The Social Sciences (Pakistan), 11(S3): 6532-6535. [in English].
  15. Korobkov Y.D., Velikanova S.S., Samarokova I.V., Kozhushkova N.V., Ivanov A.G., Chernykh O.P. (2018). Mental bases of modern russian society socio-political development. Opcion, 34, Special Issue 15: 625-640. [in English].
  16. Leshner O.V., Baklykova T.Yu., Razumova E.M., Vakhrusheva I.A., Kaminsky A.S., Velikanova S.S., Chernykh O.P. (2019). Characteristic of personnel readiness for conflict management in the organization. Religación. Revista de Ciencias Sociales y Humanidades, 4(18): 111-119. [in English].