

Formation of Pre-Service Teachers' Reflective Skills in Information Environment

Natalia Dmitrenko¹, Oksana Voloshyna², Anna Boiko³, Iryna Hudym⁴, Vitalii Zelinskyi⁵

nataliadmitrenko0302@gmail.com

^{1, 2, 5} Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University, Vinnytsia, Ukraine

^{3, 4} Institute of Problems on Education of the National Academy of Educational Sciences of Ukraine, Kyiv, Ukraine

Summary

The study deals with the problem of the formation of pre-service teachers' reflective skills in information environment. The role of reflection as a mechanism of formation of a modern teacher's self-consciousness was cleared up. The technology of formation of pre-service teachers' reflective skills was characterized and tested. The main stages of the technology were: a motivational and cognitive stage, a problematic and practical stage, and a reflective and operational stage. The substantiated pedagogical conditions of formation of pre-service teachers' reflective skills were adhered. The criterial and evaluative characteristics of the formation of pre-service teachers' reflective skills were worked out: components (reflection of personal conformity, reflection of the psychological and pedagogical barriers, reflection of professional growth); criteria (criterion of consistency, criterion of difficulty, criterion of potential); indicators (cognitive-evaluative, value-motivational, activity-creative). The levels of formation of pre-service teachers' reflective skills (insufficient level, acceptable level, and optimum level) were determined. The analysis of students' surveys showed the effectiveness and expediency of using the technology of formation of pre-service teachers' reflective skills in the process of professional training.

Keywords:

pre-service teachers' reflective skills, technology of formation of pre-service teachers' reflective skills, components of formation of pre-service teachers' reflective skills

1. Introduction

In modern information society, the requirements for the teacher's professional skills and personal qualities have increased significantly. The teacher has to possess, in addition to special knowledge, knowledge of psychology and pedagogy, the basics of management, the ability to organize and conduct scientific research, apply innovative pedagogical technologies, master special terminology and be professionally successful [1].

The mechanism of formation of the teacher's self-consciousness is reflection. The formation of professional reflection at all stages of training in a higher education institution is the most important condition for meeting the requirements for the teaching profession. The level of formation of professional reflection is manifested in the extent of a teacher's ability to coordinate and regulate his/her deeds, actions, and behavior for creative self-

realization in professional activities. Reflection is a professionally important quality, necessary for implementation of pedagogical activities, self-education and self-development of a prospective teacher.

The *purpose* of the article is to present the technology of forming the reflective skills of pre-service teachers and check its effectiveness in the process of professional training.

2. Theoretical Foundations

The problem of the formation of pedagogical reflection has been studied by the following scholars: Astington, and Hughes [2], Hacker, Bol, and Keener [3], Hatton, and Smith [4], Moon [5], Ross [6], Serra, and Metcalfe [7], Wildman [8], Ziaziun [9], Miroshnyk [10], Andriushchenko [11] and others.

The Concept of professional-pedagogical reflection [12, 13] was developed with the purpose of forming reflection as a component of a teacher's pedagogical skills. It was based on the research paradigm of professional teacher training, which was grounded on Dewey's concept about the fundamental difference between teachers with different levels of formation of reflective skills [14]. The main principles of the concept are 1) the problematic nature of pedagogical situations; 2) the research approach to solving pedagogical problems; 3) the ontological status of the totality of all phenomena in the educational system.

The pre-service teacher should be able to identify the problematic nature of a particular situation, taking into account all possible conditions and means of its solution, which is an alternative to the traditional, stereotypical approach. The teacher needs to assess the situation with a "fresh" look, realizing the uniqueness and originality of each particular case.

For the second principle, not only the declaration is important, but also the practical implementation of the research approach in solving pedagogical problems. It indicates that the professional training of pre-service teachers should be focused on the development of research skills and the formation of reflective thinking.

The third principle, which is connected with the social orientation of the content of professional and pedagogical education, assumes that the reflective teacher, when analyzing his/her activity, relies not only on professional, but also on socially important criteria, evaluates the learning process both from the position of correspondence to the psychological features of students, and from the position of correspondence of its content and level to the goals and needs of society [12].

Korthagen presented the teacher's reflective activity in the form of a scheme, the so-called "ALACT model", (according to the first letters of the words that stand for the stages of reflection) [15]: 1) Action; 2) Looking back on the actions; 3) Awareness of essential actions; 4) Creating of alternative methods of action; 5) Trial. The scheme proposed by Korthagen is called "the reflective circle" (Fig. 1), as the content of each subsequent stage of activity is conditioned by the previous step, and the realization of all stages becomes a kind of impulse for a teacher to carry out the reflective activity at a qualitatively new level.

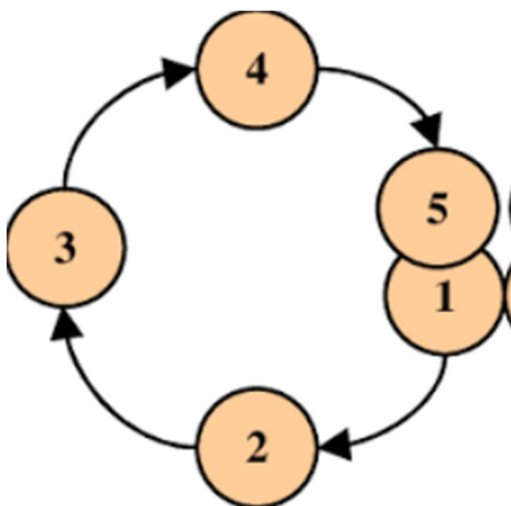


Figure 1: Structure of the "reflective circle" (Korthagen).

The reflective process in pedagogical communication is a kind of regulator of teacher's communicative behavior. The product of professional reflection is the teacher's search and creation of new professional values as qualitative components of personal self-consciousness, significantly changing his/her attitude to himself/herself, others, and pedagogical activities.

The result of teacher's professional reflection is: 1) structuring and reconstruction of pedagogical experience, professional problems, and available knowledge; 2) comprehension of the past and prediction of the future in the profession; 3) the expansion of professional spectrum

of actions; 4) formation of an individual professional style of behavior; 5) personal and professional development; 6) formation of subjectivity as a creative attitude to pedagogical activity [13].

Toffler pointed out that teacher's effective behavior depended on a personality's ability most likely to foresee the outcome of specific actions. It was required to take into account the reaction of the environment to the behavior of the individual. Accordingly, the author concluded that prudence was based on the ability to project a personal future based on information coming from the outside [15].

In psychological and pedagogical studies different types of reflection connected with teacher's professional activity were considered, namely: intellectual, cooperative, social-perceptual, personal and communicative [16].

Intellectual reflection is defined as a teacher's ability to take an active research position on his/her activity and himself/herself in order to critically analyze, comprehend, and evaluate its effectiveness.

Cooperative reflection is realized in the process of joint activity and allows to project collective activity and coordinate the common actions of the subjects of the pedagogical environment. It is especially important when there are contradictions between the established norms of organization of collective interaction and the situation when there is a violation of these norms.

Social-perceptual reflection is the basis of the process of the teacher's cognition of the subjects of pedagogical and professional interaction and consists of rethinking, reconsideration of their perceptions and opinions, which were formed earlier in the process of communication and joint activities with children and colleagues. At the same time, the teacher makes different assumptions about the hidden goals and motives of others' behavior; tries to foresee their actions in a certain situation; reveals contradictions in the behavior of the student and identifies ways to resolve them; analyzes changes that have happened to children in the process of education; overcomes the contradiction between the previously formed opinion about students, colleagues and new models of their behavior.

Personal reflection is manifested in the process of cognition by the subject of the peculiarities of their thinking, activities, communication and attitude to himself or herself, and others. The result of the personal reflection is the "self-image" of the teacher as a participant of pedagogical activities, pedagogical communication and personal development.

Communicative reflection is the teacher's awareness of how he or she is perceived, evaluated, and treated by others. This type of reflection is the basis of self-criticism of a teacher who can analyze his/her achievements and himself/herself as a personality objectively.

Knowledge of the structure of professional reflection is the basis for carrying out diagnostic, corrective and formative work, which contributes to the selection of effective methods of forming the specified quality.

The analysis of the observed studies on the researched issues allowed us to determine the following components in the structure of professional reflection of the pre-service teacher: reflection of personal conformity, reflection of the psychological and pedagogical barriers, reflection of professional growth.

Thus, based on the conducted analysis, we can conclude that it is required to start systematic work on the formation of pre-service teachers' reflective skills in the process of professional training at the university.

3. Methodology

It was determined the pedagogical objectives for the formation of professional reflection of pre-service teachers in the study of disciplines of the pedagogical cycle, namely: actualization of the prospective teachers need for professional reflection, creation a reflective environment in the study of pedagogical disciplines, pre-service teacher's orientation in the information environment, and immersion of the pre-service teacher in quasi-professional activity.

The realization of technology of forming pre-service teachers' professional reflective skills in the process of studying the disciplines of pedagogical cycle had several stages: motivational-cognitive, problem-practical and reflective-operational. Each stage included a purpose, content, techniques, methods, means, pedagogical conditions and results.

The main components and stages of the designed technology are presented in Table 1.

Table 1: Technology of formation of pre-service teachers' reflective skills

1. Motivational-cognitive stage	
<i>The aim of the stage</i>	Actualization of the cognitive basis of the formation of pre-service teachers' reflective skills in the process of studying the disciplines of the pedagogical cycle. Development of pre-service teachers' motivational readiness for the formation of professional reflection in the process of the educational-professional activity.
<i>The content of the stage</i>	Actualization of pre-service educators' professional motivation; familiarization of higher education students with the characteristics of professional reflection; formation of a holistic view of the methods and techniques of disclosure, development, and implementation of pre-service teachers' professional reflection; actualization of the cognitive meaning of reflection of personal conformity, reflection of professional growth and reflection of psychological and pedagogical

	barrier; development of the need for reflection of professional self-realization.
<i>Technological methods and techniques</i>	Methods of self-knowledge, self-assessment, and self-reflection; methods of reflective self-regulation; methods of pedagogical observation; brainstorming.
<i>Implementation of pedagogical conditions at this stage</i>	Actualization of the pre-service teacher's need for professional reflection; creation of a reflexive environment in the process of professional training.
<i>Result (the effect being observed)</i>	The developed ability of pre-service teachers to characterize and recognize the components of professional reflection, to assess the level of their formation, to carry out individual and group reflection of joint educational-professional activity.
2. Problematic and practical stage	
<i>The aim of the stage</i>	Actualization and development of problem-reflective thinking of pre-service teachers through inclusion in the process of solving problem-based professionally-oriented tasks and pedagogical situations.
<i>The content of the stage</i>	Formation of pre-service teachers' skills to create contradictions, challenges in educational and professional activity and professional self-development; formation of skills of adequate self-analysis, self-assessment and self-expression; self-regulation skills; ability to overcome barriers and difficulties in educational and professional activity; ability to recognize and use reflective mechanisms of activity, behavior and communication; reflective readiness for independent identification and solution of professional problems, including in pedagogical situations.
<i>Technological methods and techniques</i>	Method of analyzing the results of educational and professional activity; methods of discussion, reflective dialogue and polylogue; pedagogical communication training; organizational and simulation, role-playing games; resolution of problem professionally-oriented situations; reflective exercises.
<i>Implementation of pedagogical conditions at this stage</i>	Creating a reflective environment in the process of professional-pedagogical training; orientation of a pre-service teacher to solve problem professionally-oriented tasks and pedagogical situations.
<i>Result (the effect being observed)</i>	The formed readiness and ability of pre-service teachers to identify and solve pedagogical problems independently, including situations of pedagogical risk.
3. Reflective and operational stage	
<i>The aim of the stage</i>	Actualization of the operational and creative basis for the formation of professional reflection of pre-service teachers.

<i>The content of the stage</i>	Pre-service teachers' training on the practical basics of professional self-development, reflective analysis of educational and professional achievements; forming the need for reflective self-improvement; modeling problem-based professional tasks and pedagogical situations by students; developing strategies, tactics of behavior, diagnosis and formation of reflective position in simulation games.
<i>Technological methods and techniques</i>	Methods of discussion, reflective dialogue and polylogue; techniques of prognostication; self-diagnostics of professionally important qualities; reflective exercises; organizational and simulation games; keeping portfolios and self-reports.
<i>Implementation of pedagogical conditions at this stage</i>	Creating a reflective environment during professional-pedagogical training; guiding the pre-service teachers to solve problem-based professionally-oriented tasks and pedagogical situations; involving the pre-service teachers in professional activities.
<i>Result (the effect being observed)</i>	The vast majority of students are at the optimal level of formation of professional reflective skills with distinct operational and creative characteristics of professional reflection.

In the experimental training, the following substantiated pedagogical conditions for the formation of pre-service teachers' reflective skills were adhered: 1) the process of formation of reflective skills was carried out within the framework of professional and pedagogical training, characterized by integrity, differentiation, stage-by-stage organization, organized interaction of subjects of the educational process, aimed at implementing the aims of formation of professional reflection of pre-service teachers; 2) the process of formation of reflective skills of the pre-service teachers was considered as a system of integral variables, including professional orientation, theoretical awareness, as well as the presence of professionally important skills necessary for joint activity; 3) the process of formation of professional reflection was a purposeful influence on all spheres of life of the personality.

Participants

The experimental study in order to implement the technology of formation of pre-service teachers' reflective skills in the process of studying the disciplines of the pedagogical cycle was conducted at Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University. The experimental training was carried out without a special selection of students, in usual conditions of the ordinary educational process within two semesters in the

study of discipline "Pedagogy", "Social Pedagogy", and "History of Pedagogy" [17, 18, 19]. The participants were 96 second-year students: 48 students in the experimental group and 48 students in the control group. The presented technology was introduced as the method of studying and control in the education of students of the experimental group. The classes in the control group were carried out without any changes in the traditional form. The participants were informed about the purpose and the structure of the research and assured that their names would not be used in the study result reports. Participation in the study was voluntary.

Tools

To determine the degree of awareness of the presence and level of development of professionally important personal qualities and the degree of readiness for self-analysis and self-assessment of personal conformity of the teaching profession, the questionnaire "Self-attitude" was used (Panteleiev) [20].

In order to identify the ability to recognize psychological and pedagogical barriers, readiness to overcome difficulties in educational and professional activity we used the Achievement Motivation Diagnostic Test (Mehrabian) [20].

In order to determine the level of awareness of personal potential, and ability to activate and use personal potential in educational and professional activities, the survey "Type of Behavioral Activity" (Wasserman, and Gumenyuk) [20] was implemented.

4. Results and Discussion

To determine objectively the levels of formation of reflective skills of pre-service teachers, the criteria were identified: 1) criterion of consistency, 2) criterion of difficulty, and 3) criterion of potential. Each of the criteria contained a system of indicators based on cognitive-evaluation, value-motivational and activity-creative characteristics (Table 2).

Table 2: Criterial and evaluative characteristics of the formation of pre-service teachers' reflexive skills

<i>Components</i>	<i>Criteria</i>	<i>Indicators</i>		
		<i>Cognitive-evaluative</i>	<i>Value-motivational</i>	<i>Activity-creative</i>
<i>Reflection of personal conformity</i>	<i>Criterion of consistency</i>	awareness existence and level of development professionally important personal	readiness for self-reflection and self-assessment of personal relevance to the teaching profession	ability to adjust personal qualities in accordance with the requirements of the pedagogical profession

		qualities		
<i>Reflection of the psychological and pedagogical barrier</i>	<i>Criterion of difficulty</i>	the ability to recognize psychological and pedagogical barriers	readiness to overcome difficulties in educational and professional activities	ability to use barriers constructively in educational and professional activities
<i>Reflection of professional growth</i>	<i>Criterion of potential</i>	awareness of the mechanisms professional growth	need of self-improvement	desire for creative self-development, self-education

Based on the criteria and indicators of professional reflection, we identified the levels of formation of professional reflection of a pre-service teacher in the process of professional and pedagogical training at the university: *optimal, acceptable, and insufficient*.

The results of the questionnaire “Self-attitude” (Panteleiev) indicated an insufficient awareness of the participants of their personality, their “I”. The obtained data confirmed the low expression of the indicators of the criterion of consistency, which affected the lack of willingness of pre-service teachers to self-observation and self-analysis, the comparison of personal qualities with the image of the prospective specialist, rethinking of the acquired knowledge, the lack of the need to self-improvement both personally and professionally. Analysis of the results of the criterion of consistency revealed that about half of the pre-service teachers were at an insufficient level of formation of this criterion.

Quite low values were recorded according to the criterion of difficulty; many prospective teachers were not interested in overcoming psychological and pedagogical barriers, and were not ready and did not know how to independently overcome difficulties that arose in educational and professional activities.

Since the reflection of psychological and pedagogical barriers revealed aspirations to enhance personal capabilities in the structure of pre-service teachers’ reflective skills, we investigated the need for achievement and approval of the respondents. For this purpose, we used the Achievement Motivation Diagnostic Test (Mehrabian). According to the test, the need for achievement manifested itself in the need 1) to overcome obstacles and obtain high performance in work; 2) to improve oneself, to compete with others and outperform them, to realize one’s talents and thereby increase self-esteem. The test was designed to diagnose two personal motives: striving for success and the avoidance of failure.

Analyzing the participants’ “need for achievement” and “failure avoidance” in the experimental training, it was noted the low desire of teachers for self-knowledge, self-

development, professional growth, readiness for self-persuasion, and self-motivation in professional activities, when faced with obstacles. Respondents lacked persistence in striving towards a goal and were fearful and hesitant when faced with difficulties and obstacles.

Indicators of the criterion of potential were measured by using a typological personality questionnaire “Type of Behavioral Activity” (Wasserman, and Gumenyuk). This questionnaire was designed to diagnose the level of formation of general human activity, its resources, and types of behavior. Each respondent could be assigned to one of five types of behavioral activity.

The analysis of the obtained results showed the dominance of two radically different types of behavioral activity: type A (a hyperactive, over-energetic, impatient, impulsive personality) and type B (an insecure and passive person, who constantly doubts, and avoids responsibility). According to the defined typological characteristics of the personality, it was shown that pre-service teachers did not have awareness, understanding of their potential, personal qualities, opportunities that could contribute to the development of professionalism. Prospective professionals could not activate and use their potential in educational and professional activities independently.

The dynamics of criteria and indicators of the formation of pre-service teachers’ reflective skills in the experimental and control groups were presented in generalized form. We summarized all the data in the table illustrating the dynamics of each indicator of the formation of pre-service teachers’ reflective skills at the beginning and end of the experimental training (Table 3).

Table 3: Levels of formation of pre-service teachers’ reflective skills (according to the criteria) in the initial and final sections of the experimental training

Criterion	Insufficient level		Acceptable level		Optimum level	
	Initial section	Final section	Initial section	Final section	Initial section	Final section
Experimental group						
<i>Consistency</i>	49.4 %	20.3 %	44.3%	58.2%	6.3%	21.5 %
<i>Difficulty</i>	51.9 %	27.8 %	43 %	53.3 %	5.1%	18.9 %
<i>Potential</i>	41.8 %	18.9 %	50.6%	54.5 %	7.6 %	26.6%
Control group						
<i>Consistency</i>	50.6 %	40.5 %	43 %	51.9 %	6.4 %	7.6 %
<i>Difficulty</i>	49.3 %	41.8 %	45.6%	49.4 %	5.1 %	8.8 %
<i>Potential</i>	49.4 %	44.3 %	43 %	48.1 %	7.6 %	7.6 %

Analysis of the dynamics of the formation of the criterion of consistency in the experimental group showed that after the experimental training the number

of pre-service teachers who obtained the optimum level of formation of reflective skills on this criterion increased to 15.2% and to 13.9% those who were at the acceptable level. The number of students who were at the insufficient level of the criterion of consistency decreased to 29.1%.

No significant changes were observed in the control groups: only 1.2% increased the number of pre-service teachers, who were at the optimal level of reflective skills on this criterion, to 8.3% – at the acceptable level.

The obtained data confirmed the positive changes in the criterion of consistency in the experimental group, which reflected the willingness of pre-service teachers to self-observation and self-analysis, comparing their qualities with the image of the prospective professional, understanding, awareness of knowledge, etc.

The results of the analysis of the formation of reflective skills of pre-service teachers on the criterion of difficulty in the experimental group in the initial and final sections showed that the number of prospective teachers who were at the optimal level of reflective skills increased to 13.8% and to 3% – at the acceptable level. The number of students who were at the insufficient level of the criterion of difficulty decreased to 24.1%. In the control group the number of pre-service teachers, who were at the optimal level of formation of reflective skills on this criterion, increased only to 3.7% and to 3.8% – at the acceptable level.

The analysis of the dynamics of the criterion of potential in the experimental group showed that the number of pre-service teachers, who were at the optimal level of formation of reflective skills on this criterion increased to 19% and to 3.9% – at the acceptable level. The number of students who were at the insufficient level decreased to 22.9%.

The results of the experimental training indicated significant changes in the level of formation of reflective skills of pre-service teachers in the experimental group: the number of respondents at the optimal and acceptable level according to all criteria increased; the number of students who were at the insufficient level of development of reflective skills significantly decreased. There were no significant changes in the level of reflective skills of pre-service teachers in the control group.

5. Conclusions

Thus, the formation of reflective skills of pre-service teachers is relevant in the course of modern educational changes and meets the requirements of the formation a competitive specialist in the information environment. Professional reflection is a mandatory

component of the pedagogical activity, as a mechanism of personal and professional development of the pre-service teacher.

We introduced changes in the process of pre-service teachers' training. The conducted diagnostics showed the effectiveness of the application of the developed technology of the formation of reflective skills of pre-service teachers, that made a contribution to the understanding of the priority of personal development and professional self-development, deepening and systematization of knowledge about the essence and mechanisms of the formation of reflection, which, as a result, would positively affect the effectiveness of the future professional activity.

References

- [1] Dmitrenko, N., Voloshyna, O., Melnyk L., Hrebenova V., Mazur I.: *The Teacher's Role in the Context of Information Society*. IJCSNS International Journal of Computer Science and Network Security, vol. 22(6), pp. 187–193 (2022) <https://doi.org/10.22937/IJCSNS.2022.22.6.27>
- [2] Astington, J. W., Hughes, C.: *Theory of mind: Self-reflection and social understanding*. Oxford Handbook of Developmental Psychology. New York: Oxford University, vol. 2, pp. 398–424 (2013)
- [3] Hacker, D. J., Bol, L., Keener, M. C.: *Metacognition in education: A focus on calibration* / In J. Dunlosky and R. Bjork (Eds.), *Handbook of Memory and Metacognition*. Mahwah, NJ : Lawrence Erlbaum Associates, pp. 429–455 (2008)
- [4] Hatton, N., Smith, D.: *Reflection in Teacher Education: Towards Definition and Implementation*. Teaching and Teacher Education, vol. 1, pp. 33–49 (1995)
- [5] Moon, J.: *Reflection in Learning and Professional Development: Theory and Practice*. London: Kogan Page (1999)
- [6] Ross, D.: *Cooperating teachers facilitating reflective practice for student teachers in a professional development school*. Education, vol. 122(4), pp. 682–687 (2002)
- [7] Serra, M. J., Metcalfe, J.: *Effective implementation of metacognition* / In D. J. Hacker, J. Dunlosky, A. C. Graesser (Eds.), *Handbook of Metacognition and Education*. NY: Routledge, pp. 278–298 (2009)
- [8] Wildman, J., Niles, J.: *Reflective Teachers: Tension between Abstractions & Realities*. Journal of Teacher Education, vol. 38(4), pp. 25–31 (1987)
- [9] Zyazyun, I. A.: *Educational technologies in the dimensions of pedagogical reflection*. Svitlo, vol. 1, pp. 4–9 (1996)
- [10] Miroshnyk, O. H.: *The concept of pedagogical reflection in psychological research*. Psychology and personality, vol. 2(1), pp. 189–199 (2016)
- [11] Andryushchenko, O. O.: *Reflective activity of the primary school teacher: stages and mechanisms of development*. Wschodnioeuropejskie Czasopismo Naukowe (East European Scientific Journal), vol. 11(51), pp. 12–17 (2019)

- [12] Grant, T. C.: *Preparing for reflective teaching*. Boston (1984)
- [13] Kirby, P.: *Development of the reflective teaching instrument*. Journal of research & development in Education, vol. 22(4), pp. 45–50 (1989)
- [14] Dewey, J.: *Knowing and the Known*. Boston: Beacon Press (1989)
- [15] Korthagen, F. A. J.: *Making teacher education relevant for practice: the pedagogy of realistic teacher education*. URL: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.92.1562&rep=rep1&type=pdf>
- [16] James, W.: *Psychology*. M.: Pedagogy (1991)
- [17] Dmitrenko, N., Voloshyna, O., Melnychuk, D., Holovska I., & Dutka, H.: *Case method in quasi-professional training of prospective teachers*. Independent Journal of Management & Production, vol. 13(3), pp. 001–017 (2022) <https://doi.org/10.14807/ijmp.v13i3.1849>
- [18] Dmitrenko, N., Nikolaeva, S., Melnyk, L., & Voloshyna, O.: *Autonomous ESP Learning of Prospective Teachers of Mathematics*. *Revista Romaneasca pentru Educatie Multidimensionala*, vol. 12(1), pp. 86–104 (2020)
- [19] Dmitrenko, N.Y., Voloshyna, O.V., Budas, I.O., Davydiuk, M.O., Oliinyk, N.A.: *Formation of Teenagers' Value Orientations through Creolized Texts*. *Postmodern Openings*, vol. 13(1), pp. 47–65 (2022) <https://doi.org/10.18662/po/13.1/384>
- [20] Bolotova, A. K.: *Table book of a practicing psychologist: practical manual*. M.: Yurayt Publishing House (2019)

Natalia Dmitrenko	ScD in Pedagogy, Associate Professor, Department of Methods of Foreign Languages Teaching, Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University, Ostrozkoho, 32, 21001, Vinnytsia, Ukraine E-mail: nataliadmitrenko0302@gmail.com ORCID ID: 0000-0002-3556-0003
Oksana Voloshyna	PhD in Pedagogy, Associate Professor, Department of Pedagogy, Vocational Education and Educational Institutions' Management, Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University, Ostrozkoho, 32, 21001, Vinnytsia, Ukraine E-mail: woloshina555@gmail.com ORCID ID: 0000-0002-9977-7682
Anna Boiko	PhD in Pedagogy, Senior Researcher, Laboratory of Out-of-School Education, Institute of Problems on Education of the National Academy of Educational Sciences of Ukraine, Berlynskoho, 04060, Kyiv, Ukraine E-mail: boikoanna@gmail.com ORCID ID: 0000-0002-0371-5058
Iryna Hudym	PhD in Pedagogy, Senior Researcher, Laboratory of Social Pedagogy and Social Work, Institute of Problems on Education of the National Academy of Educational Sciences of Ukraine, Berlynskoho, 04060, Kyiv, Ukraine E-mail: hudymir@gmail.com ORCID ID: 0000-0002-6459-806X
Vitalii Zelinskyi	PhD Student, Department of Pedagogy, Vocational Education and Educational Institutions' Management, Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University, Ostrozkoho, 32, 21001, Vinnytsia, Ukraine E-mail: vitalij.zelinskij.02@gmail.com ORCID ID: 0000-0002-8958-174X