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**STUDYING PROFESSIONAL REFLEXION OF TEACHERS: A
COMPARATIVE ANALYSIS OF TWO RESEARCH METHODS**

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Abstract

The purpose of the research is to analyze two research methods. One of them was developed and tested to study the peculiarities of the professional reflexion of school teachers and the other is to study the peculiarities of the reflexion of students - future pedagogues, participants of the "I am a Professional" student competition. The method of the comparative analysis was used. The object for comparison was the system of elements constituting the research design: theoretical framework, goals and objectives of the research, subjects, methods used, design of the research technique, procedure of its implementation, methods of data processing, obtained results, opportunities and limitations in the use of methods. The analysis revealed similarities and differences in the way the research procedure was designed and implemented, related to the content of the goals and objectives for which these tools were developed. The limitations in the scope of application of both methods, due to the use of qualitative ways for data processing, are identified. It is noted that there is a possibility of applying these techniques to both categories of respondents: teachers and students. It is also possible to combine these techniques for a comprehensive study of pedagogical reflexion in correlation with the whole system of pedagogue's activity: value orientations, means and ways of activity, ideas about the object of activity.

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Keywords: Method of research of reflexion, personal and professional values, pedagogical situation, reflexion of pedagogical activity, types of reflexion



1. Introduction

Modern studies of professional reflexion, oriented on the activity approach, are based on the statement that the efficiency of the activity performance depends on the subject's reflexion development (Guseynov & Shipovskaya, 2019; Shadrikov, 2013; Shustova, 2016). In this case, the nature of reflexive processes manifests itself "in the ability of the individual to assess the various parameters of their own activity, the coordination of their individual actions and deeds in a holistic system, allowing to obtain the planned desired result" (Shadrikov & Kurginyan, 2015, p. 109).

The subject of reflexion is the activity of the subject, and the main function is the return to the situation of difficulty in the activity (Alekseev, 2002). In this regard, reflexion is present in the formation of all components of the functional system of activity, including its goals, internal and external means and conditions, decision-making processes, plan and course of action implementation, intermediate and final results, allowing to present this process as a systemogenesis of activity (Shadrikov & Kurginyan, 2015).

Pedagogical reflexion is studied in the context of the problem of improving the quality of professional activity of a pedagogue (Koykova, 2018; Palyohina, 2018; Shiyan et al., 2019). In this case, pedagogical reflexion is understood as a complex psychological phenomenon manifested in the ability of teachers to enter into an active research position in relation to their activities and to themselves as its subject, in order to critically analyze, reflect on and evaluate the effectiveness of activities for the development of the student's personality (Shustova, 2016). Pedagogical reflexion is studied in various aspects: as a tool for regulating the interaction between the child and the adult, creating the area of the nearest development in the educational process (Honga et al., 2019; Menekse, 2020); the factor of efficiency of formation of social intelligence of students (Chinnery et al., 2019); the personal reflexive aspect of formation of the creative tasks solution (Le & Wartschinski, 2018; Ozhiganova, 2018). In pedagogy and psychology of higher education the organized reflexion of students is studied as the pedagogical phenomenon connected with their personal growth and development of professional competences (Svobodina & Khristoforova, 2019), as a necessary condition of professional training of future teachers (Daradoumis & Arguedas, 2020; Karaoglan Yilmaz et al., 2018; McKay, 2019; Sharov, 2018).

In order to assess the nature of reflexive processes in the psychology of activity, diagnostic techniques have been developed and applied aimed at the study and description of reflexion in two aspects: as a special quality of personality (Karpov, 2003); as an activity procedure (Leontiev et al., 2009). A diagnostic technique to identify the nature of reflexive processes associated with the evaluation and coordination of their actions in a holistic system to achieve the planned result was also developed in the activity approach (Vasiliev & Yudina, 2014).

2. Problem Statement

The analysis shows that the existing psychological and pedagogical tools used to assess reflexion in activity are insufficient to solve a number of research tasks related to identifying and describing the peculiarities of teachers' professional reflexion. Firstly, most of the diagnostic methods used to study reflexion are based on the testing method, which has a number of limitations, in particular, related to the

subjectivity of the obtained results, since we often deal with the respondents' answers oriented towards the researchers' expectations. Testing doesn't allow to get a complete picture of the subject's actions in order to draw conclusions about the nature of his/her activity and the reflexion associated with it. Secondly, these tools do not take into account the peculiarities of professional pedagogical activity that is usually carried out in situations of uncertainty: pedagogues constantly have to make complex decisions in problematic situations, develop project-type solutions oriented towards the future; plan structures for joint activities with students; engage in spontaneous communicative situations; regulate the learning process, monitor its results, etc. Testing does not take into account such highly dynamic and unstable situations for which a teacher's reflexion is directed. Thirdly, in spite of the fact that some diagnostic methods are differentiated according to age (for students, school pupils, and working adults), it is not enough to study the peculiarities of the reflexion of adult professional pedagogues and students mastering the same profession, because besides the age peculiarities it is necessary to take into account the differences between the working and learning activity.

3. Research Questions

Based on the above, there is a research question related to clarifying what should be the primary focus in studying the peculiarities of professional reflexion of pedagogues and what tools can be used for this purpose. This question can be made more specific as follows: what is common and what are the differences between the tools used to study the manifestation and development of the professional reflexion of working teachers and HEE (higher educational establishment) students mastering the profession of a teacher?

4. Purpose of the Study

The purpose of this paper is to compare two research methods. One of these methods is developed and tested to study the peculiarities of professional reflexion of school teachers and the other method is used to study the peculiarities of the professional reflexion of students - future pedagogues. In order to achieve this purpose it is necessary to compare the theoretical framework of the two methods; to identify similarities and differences in the way the research procedure is designed and implemented; to determine the limits of the possible use of these methods.

5. Research Methods

Comparative analysis is used as the main research method in this paper. The subject of comparison is two authors' research methods designed, the first - for revealing the peculiarities of pedagogical reflexion of working teachers, and the second - for revealing the peculiarities of pedagogical reflexion of HEE students mastering the profession of a teacher. The comparison procedure includes:

- a brief description of each method, including: theoretical grounds, the target unit, the subjects, the methods used, the design of the research method, the procedure of its implementation, the methods of processing the data obtained, the results of the research, the limits of applicability of the method;

- comparison of the main parameters of the methods in the form of a table.

6. Findings

6.1. Description of methods

6.1.1. Method of research of peculiarities of the reflexive competence of working pedagogues

Theoretical framework. The method is developed on the basis of a number of methodological concepts.

The structure of reflexion and its main functions: analysis of the situation, criticism of the way of action, re-designing (Shchedrovitsky, 2005). *Analysis* - reconstruction of a situation of difficulty, construction of a representation of what happened. *Criticism* - identification of the cause of the difficulty and its deployment in time. *Re-designing* - transformation of the way of action so that the new action occurred without difficulties. Schematically it is presented in Figure 1.

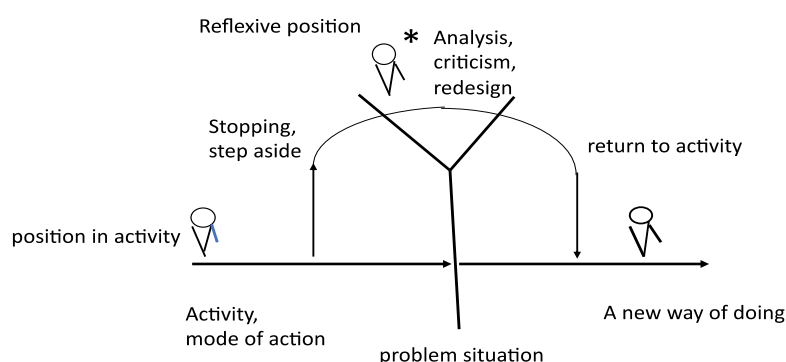


Figure 1. Reflexive act structure (by G.P. Shchedrovitsky)

The meaning of pedagogical reflexion in different models of education. At the current stage of pedagogical theory there are three different models of education: disciplinary, free (person-oriented) and activity-based (Medvedev et al., 2020). The meaning of pedagogical reflexion is different in different models. For example, the "disciplinary" model of education is characterized by strict algorithmization of the educational process, technological effectiveness, rigid structuredness. Therefore, the meaning of pedagogical reflexion here comes down to the evaluation of the conformity of the content being transmitted to the standard, and also to the verification of the students' actions for their correspondence to the rules and patterns. The meaning of pedagogical reflexion in the "free" model consists in evaluating the

spontaneity and creativity of the students as manifestations of the liberty and freedom of their thinking. For the "activity-based" model, which is based on joint exploratory activities of a teacher and students, equality of their positions in a teaching situation, and the treatment of a situation of ignorance or misunderstanding as a productive one, pedagogical reflexion implies not an evaluation but a mutual reflexion of the intentions and actions of a teacher and students, an analysis of the "gap" between the cultural way of action and that actual and natural way which the students demonstrate.

Types of pedagogical reflexion: defining, positional, normative, norm-creating (Vasiliev & Yudina, 2014). *Defining reflexion* is manifested in how a pedagogue in the process of solving a professional task separates the knowable from the unknowable, whether a pedagogue, through the formulation of a question (search query), can mark the boundary of his ignorance / lack of understanding / lack of means to solve the task. *Positional reflexion* shows whether a pedagogue can analyze a situation from different standpoints, whether by analyzing a practical situation he/she can identify the grounds for actions taken in different scenarios of pedagogical action, to answer the question "why does he/she act this way?" *Normative reflexion* is whether a pedagogue can formulate a problem, denote the main gap in activity in the form of a contradiction. *Norm-creating reflexion* shows whether a pedagogue can suggest options of transforming the situation, ways of solving the problem.

Goals of Applying the Method. We developed the method as a research tool to reveal the relationship between the reflexive competence of school teachers and the nature of their personal and professional values. In order to achieve this goal it was necessary, first, to identify the peculiarities of teachers' value orientations taking into account the existence of three different models of education at the present stage (disciplinary, freedom-based education and activity-based); second, to analyze the peculiarities of teachers' professional reflexion based on the ideas of activity-based approach about the structure and functions of reflexion (situation analysis, criticism of the way of action, re-designing); and, third, to compare the identified peculiarities of teachers' value priorities with the peculiarities of their reflexive competence.

The method is based on a combination of **the methods** of questioning, the case method, and correlation analysis.

Design. The method consists of four parts.

First part: questionnaire to find out the general world outlook and value priorities, without any connection with professional activity. There are six questions in total. Each question presents three options of answers: formulation of value characterizing the disciplinary, free, and activity-based model. The subject is asked to rank the importance of each option. The values are formulated in such a way that all three options look attractive to the respondent in order to minimize the risk of socially desirable answers.

For example:

In my life, I especially appreciate...

Stability and predictability

Spontaneity and unexpectedness

When new opportunities arise

The more important to me is ...

Safety

Emotional comfort

Possibility of calculated risk

Etc.

Second part: A questionnaire to determine the professional values as they relate to the different components of the teacher's work. The method is designed so as to be able to trace how the representation of professional values corresponds to the general world outlook values. The second part contains six questions about what teacher characteristics are most valuable: in preparing lessons, developing learning material, working with emotions and the psychological climate in the classroom, in control and evaluation activities, in curriculum development, and in interaction with children (see Table 1). All characteristics are given in triples, where the first option corresponds to the disciplinary model, the second to the free model, and the third to the activity-based model; the respondent must rank the importance of the values within the triples.

For example:

You are asked to complete the following sentence: I especially appreciate when the teacher....

Table 1. Question/answer sheet for the second part of the method

The aspect of the teacher's activity		Options	
Organizing and conducting classes	Can attract attention and hold it throughout the lesson. Bright, charismatic speaker	Gives children a lot of free time. Observes students a lot, appreciates and knows how to support their spontaneous activities	Is able to initiate and moderate discussion about educational content and works extensively with such formats
Answer:			
Organization of subject-related content	Presents subject content in a systematic, logical, and consistent manner.	Believes that the content should be determined by the diversity of the cultural environment and the child's spontaneous interest in it	Poses tasks to children for which they do not yet have the means and methods to solve. Often asks problematic questions.
Answer:			

Etc.

Part three: solving five cases describing problem situations in the teacher's work. Three options of answers are given for each case, which correspond to disciplinary, free, and activity-based models, and the fourth option, giving the opportunity to formulate one's own option. The method allows one to compare those value priorities that are declared by the respondent through the questionnaire and those that are manifested through the solution of problematic cases. The degree of congruence of the respondent's answers to the three parts of the method will be an indicator of how much the value professional priorities are reflected.

For example:

Case 1:

Oleg, a 6th class student, brought a tablet to class and started playing games during the lesson. The other boys saw it and began to get distracted from the lesson. The teacher noticed it too. The boy continued to play and distract the class.

How, from your perspective, a good teacher should act. Choose an option or write your own:

A. Starts a conversation with the children about what exactly distracts their attention in the tablet, smoothly leading them to connect with the subject content.

B. Looking sternly at the boy, she calmly says: "Oleg, if you don't want me to take away your tablet and kick you out of the classroom, put it away in your bag right now".

C. Formulates a problem question on the topic of the lesson, for the solution of which you can use the Internet.

D. Your course of action _____

The fourth part is aimed at determining the level of formation of reflexion of each of the four types outlined above. Here a problematic professional case and three options for teacher action (disciplined, free, and activity-based) are given. All three scenarios are problematic: none of them leads the teacher to success. The case has four tasks to test the reflective action ability in each of the four types.

Example:

You are presented with a description of a problem situation and three options (scenarios) for teacher action, none of which leads to success. Please read carefully the scenarios in the case and complete the tasks after the text.

Case.

The teacher has noticed that Kolya, one of the students in the class, is behind in the subject and gets low marks on tests and examinations. The boy, modest and quiet, does not ask questions himself, but it is evident that he is trying.

The teacher's options for pedagogical action in this situation:

– The teacher offered the student free catch-up lessons in the subject after school in order to improve his knowledge. After two weeks of catch-up lessons with the student, he has to record that the boy is not making any progress.

– The teacher began to work more in small groups in the lessons, where the boys have to work collectively on learning tasks. Kolya was asked to join different groups in different classes. Two weeks later, having checked the next work, the teacher saw that this format did not give any noticeable result, the work was in vain.

– The teacher called the boy's parents to the school to talk to them about the reasons for the boy's difficulties. The teacher, together with the parents, discussed and chose the option of psychological support of the boy taking into account his individual characteristics. The adults acted on their agreements for two weeks, but the situation with the retardation did not change for the better."

Tasks:

1. If you needed additional knowledge to solve this pedagogical problem, what search query would you formulate in an Internet search engine in each of the three scenarios?

2. Justify why the teacher acts this way (based on what principles or professional values) in each of the three suggested scenarios.

3. Formulate the essence of the problem faced by the teacher in each of the three suggested scenarios.

4. Do you think something could be changed about the actions of the teacher in each of the three options presented? What would you suggest to change?

In order to evaluate the results of this test, four levels of manifestation of reflexion have been identified: 4 - high: the signs of professional reflexion are manifested systematically; 3 - average: the signs of professional reflexion are manifested in a reduced form; 2 - low: the signs of professional reflexion are manifested fragmentarily; 1 - zero: the signs of professional reflexion are not manifested.

Correlating the results of the fourth part of the method with the cumulative results of the first, second, and third parts, we can check the significance of the relationship between the degree of congruence of values declared in the surveys and manifested in solving problematic professional situations and the level of development of different types of reflexion.

The procedure of carrying out this method consists in the stepwise performance of tasks in each of the four parts by respondents. All tasks are given in electronic form. Time for their performance is not limited. Respondents participate in the research voluntarily, not anonymously.

63 teachers from educational organizations of Moscow took part in the testing of the described research method.

As a result of the research, it was found that the values of life and professional plan in the subjects are congruent with each other, and the preferred professional actions are mostly unrelated to the declared professional values, which confirms hypothesis H1 about the incongruence of professional values and preferred scenarios of professional activity. Hypothesis H2 about the presence of a significant positive connection between the degree of congruence of declared values with preferred scenarios of professional activity, on the one hand, and the level of development of reflexion, on the other hand, was confirmed for positional type of reflexion.

6.1.2. Method 2. Research of the Peculiarities of Professional Reflexion of the Future Teachers Participating in the "I am a Professional" competition

Theoretical framework. The research of peculiarities of the reflexion of the students participating in the "I am a Professional" competition is built on the basis of several methodological assumptions.

Three functions of reflexion: analysis, criticism and re-designing (re-normalization) (Shchedrovitsky, 2005).

Typology of reflexion according to the temporal criterion. Depending on the function it performs in time, three types of reflexion are distinguished: prospective, situational, retrospective (Karpov, 2003). *Prospective* reflexion is concerned with the future and is carried out in the process of planning, designing and constructing activities; it is more characterized by an exploratory function. *Situational* reflexion is carried out during the performance of an activity and may be articulated at the moment of its completion; it also has the function of research, analysis of actions in a situation and the pronounced function of criticism of actions, based on analysis and explanation of the causes of difficulties arising. *Retrospective*

reflexion is concerned with the past experience of activity and is connected with an estimation of its results, analysis of the reasons of difficulties and re-normalization of the perfect activity.

The subject of the specially organized reflexion of the participants of the competition was defined as their professional actions as teachers in the educational process, which are based on three universal competencies (Dobryakova & Froumin, 2020):

- cognitive (thinking) competence: the use of thinking skills to solve the professional task of communicating teaching material;
- competence of interaction with others: using communication skills to solve the professional task of organizing students' communicative interaction in the classroom;
- competence of interaction with oneself: using self-regulation, self-organization skills (and other self-skills) to manage oneself in the process of organizing and conducting a lesson.

The purpose of the study was to identify the characteristics of professional reflexion of future teachers - students regarding their modeling of a distance learning lesson. In order to achieve the purpose, it was necessary to reveal the peculiarities of the reflexive perceptions of the competition participants at three stages of the task, each of which corresponded to a different type of reflexion:

- student's planning/construction of the learning session (prospective reflexion);
- self-evaluation by the student right after the end of the learning session (situational reflexion);
- delayed group reflexion at specially organized workshops (retrospective reflexion).

Such **methods** as questionnaire (oral and written), content analysis, case study, focus groups, video analysis, observation were used in the research.

At the first stage the study of the peculiarities of the prospective reflexion of the competition participants was carried out. The task consisted in revealing the peculiarities of students' reflective perceptions at the stage of planning/constructing a learning session. To solve it, the questionnaire filled in within the framework of the application to participate in the competition was used. The questionnaire questions included a description of the organizational and didactic characteristics of the lesson: subject; goals; tasks; students' age (form); organizational forms; nature of the lesson: subject-oriented/interdisciplinary/meta-disciplinary (*at choice*); lesson format: business game/role play/discussion/training/ brainstorming/ workshop session/ research (*at choice*); students' competencies, the development of which is the aim of the work: critical thinking/creativity/communication/ cooperation (*at choice*); planned results. All items of the questionnaire allow: a) to judge the quality of the competitor's goal-setting (to record the subjective idea about the characteristics of the expected result); b) to reveal the logicity/contradiction of the competitor's professional ideas about how these components agree with each other.

The second stage: research of peculiarities of situational reflexion of the competition participants. The tasks: a) to reveal the reflective ideas of participants of the competition, based on the self-assessment of the strong and weak sides shown during the lesson; b) to compare the students' reflective ideas with the reflective remarks of independent experts (expert survey). In order to solve the tasks in hand, the following were used: a participant's reflexive sheet, an expert survey, an analysis of video recordings of model learning sessions.

The participants filled out the reflexive sheet immediately after the learning session. The content of the questions was aimed at revealing the students' ideas about their demonstrated strengths and revealed, in their opinion, professional shortcomings in three universal competences: work with content; interaction with people; self-organization.

The reflexive sheet contained the following open-ended questions:

- What do you think were your strengths in presenting and structuring material that you were able to demonstrate during the session?

- In your opinion, what professional shortcomings in the area of presentation and structuring did the experts note during the session?

- What do you think were your strengths in organizing participants' interaction that you were able to demonstrate during the session?

- In your opinion, what professional shortcomings did the experts note during the session in the area of organizing participants' interaction?

- In your opinion, which of your strengths in managing yourself and your behavior you were able to demonstrate during the session?

- In your opinion, what professional shortcomings in managing yourself and your behavior did the experts note during the session?

- On a scale of one hundred points, how well did you accomplish your goal?

The questions were posed in such a way that it was possible to pair students' opinions on their shortcomings and strengths manifested in each of the three outlined universal competencies. These reflective questions allowed to solve several tasks: a) to record the participants' ideas about their strengths and shortcomings; b) to reveal which professional activities are in the focus of their attention and which seem unimportant to them; c) to analyze how those professional characteristics (strong or weak) that are in the focus of participants' attention are really determinative for achieving the planned educational outcomes of the lesson.

The expert survey was designed to identify possible gaps between the subjective ideas of the participants and the objective qualitative characteristics of the work done. Members of the jury - pedagogues of Moscow schools - gave scores based on the criteria and answered free-form questions similar to the questions offered to students on the reflexive sheet. This served as an auxiliary "mirror" in detecting reflexive gaps.

The third stage: the study of the peculiarities of the retrospective reflexion of the competition participants. The task is to reveal the peculiarities of the reflexive ideas of the competition participants in the course of the joint analysis of the model learning sessions (the competition task). In order to solve this problem the following methods were used: a case study method in the form of watching a video recording of the model lessons followed by a critical analysis of the reasons for difficulties in the preparation and carrying-out of the lessons by the competition participants; focus groups for joint staging of a learning session, designing of effective ways of its conducting taking into account the problem gaps revealed in the previous stage. Both methods were used in the two reflexive workshops.

As a result of the research some peculiarities of students' reflexion were revealed: inconsistency of goal-setting and determination of necessary conditions and means when planning a learning session;

tendency to overestimate one's professional strengths and not to notice the insufficiently formed competences; tendency to attach exaggerated importance to the technical side of things; lack of understanding of professional pedagogical language amid intuitively adequate understanding of many pedagogical and psychological phenomena, etc. From a practical standpoint the obtained results allowed us to identify the shortcomings of professional reflexion of future teachers and determine the ways to work through the complex thinking skills that allow professional reflexion: evaluation, critical, design skills. In this connection, reflexive-analytical and reflexive-design formats of work become significant both in the educational process and in the practical training of future teachers.

6.2. Comparison of the main parameters of the methods

Comparison of the two research methods developed to reveal the peculiarities of the professional reflexion of teachers and students - future pedagogues has allowed us:

- to record the common grounds in the choice of the theoretical framework in the orientation on the activity approach;
- to reveal the similarities and differences in the setting of the goals of these methods, each of which is aimed at revealing the peculiarities of pedagogical reflexion, but the first one studies them in correlation with the personal and professional values, and the second one - with the organizational, methodological, and didactic means;
- to compare the ways of construction and implementation of the research procedure including the combination of applied methods, design and carrying out of the research procedure, ways of processing of the received data;
- to determine the limits of applicability of these methods.

The results of the analysis are given in Table 2

Table 2. Comparative analysis of two methods of research of peculiarities of pedagogical reflexion

	Method 1	Method 2
Theoretical framework	The concept of reflexion, its structure and functions (analysis, criticism, re-designing); Ideas about the meaning of pedagogical reflexion in three different models of education; Four types of pedagogical reflexion: determinative, positional, normative, normalizing;	Three functions of reflexion: analysis, criticism, and re-designing; Three types of reflexion: prospective, situational, and retrospective; Teachers' universal competencies: - competence of cognition, - competence of interaction with other people, - competence of interaction with oneself.
Purpose	To reveal the interrelation between the reflexive competence and the nature of personal and professional values of school teachers	To reveal the characteristics of professional reflexion of students-future teachers regarding their fulfillment of the task of preparing and conducting a distance learning lesson
Subjects	Teachers of Moscow schools	Students of Russian HEEs - Participants of the "I am a Professional" academic competition
Methods	Questionnaire, case study, correlation	Questionnaire, content analysis, case-study,

	analysis (Pearson correlation)	focus groups, video analysis, observation
	Questionnaire to find out the general world outlook and value priorities (personal values).	Revealing the peculiarities of reflexive ideas of the competition participants at the following stages:
Method design	Questioning to find out professional values. Solution of five problematic cases to identify preferred scenarios of professional activity Solution of a problem case to identify the levels of manifestation of various types of professional reflexion	Student's planning/construction of the learning session (prospective reflexion); Self-evaluation by the student right after the end of the learning session (situational reflexion); Group reflexion at specially organized workshops (retrospective reflexion).
		Three steps: - completion of an electronic application for a session on the academic competition platform (organizational and didactic characteristics of the session); - completion of an electronic reflexive sheet after the end of the session; - participation in focus groups (performance of tasks, questionnaires). Students are not aware of conducting the research. Stages 1-2 - obligatory for all participants of the academic competition. Stage 3 - participation in focus groups at will.
Procedure	The respondents gradually perform the tasks of each of the four parts. Tasks are given in electronic form; time for performance is not limited. Respondents participated in the research voluntarily, not anonymously.	
	Statistical processing of the obtained data; ranking	Statistical processing of the obtained data;
Ways to process and interpret the results.	Qualitative analysis (results of Part 4) Calculation of Pearson correlations to determine the nature of relations between the results	Qualitative analysis of the obtained data (content analysis of the array of statements at stages 2-3)
	Allows to solve the research tasks, connected with the identification and description of the peculiarities of various types of activity-based reflexion as well as the tasks of comparison and establishment of the links between the pedagogues' value priorities and their professional reflexion	Allows: to identify the area of professional shortcomings of future teachers; to specify the ways of formation and development of complex thinking skills, which allow to carry out professional reflexion.
Scope of applicability of the method	Application of the method on large samples is limited.	Application of the method on large samples is limited.

7. Conclusion

Thus, a comparative analysis of the two correlated methods has shown the similarity in their basic methodological grounds: both of them are based on the ideas of activity psychology about the structure and functions of reflexion. Differences revealed by correlating the two methods (see Table 2) are explained, first of all, by the nature of the goals and tasks of the studies within which these tools were developed.

The most difficult question is whether it is possible to apply these methods to large groups of subjects. Since the process of reflexion is difficult to structure and impossible to technologize, its study

requires the use of methods of qualitative analysis and, as a consequence, a reduction in the number of subjects that cannot exceed the physical capabilities of experts, which explains this limitation.

In general, it can be noted that there is a possibility of applying these methods to both categories of respondents: teachers and students. As well as the possibility of combining these methods for a comprehensive study of pedagogical reflexion in correlation with the whole system of pedagogue's activity: value orientations, means and ways of activity, ideas about the object of activity.

In addition to the research functions both methods with some modification of their design and method of presentation of the results can be used as diagnostic tools. Besides, application of these methods within the framework of trainings for the purpose of development of the teachers' reflexive competence is possible.

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