

INFLUENCE OF PRE-SERVICE TEACHERS' MENTALITY ON THE ASSESSMENT OF PROFESSIONAL AND PEDAGOGICAL PROBLEMS SOLUTION

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Abstract: Modern requirements for education dictate the need to constantly improve the level of professional readiness of teachers. The degree of their competence is largely determined by the quality of the solution of pedagogical tasks. As a result of studying foreign and domestic psychological and pedagogical scientific research, the authors of the paper analyze certain factors that influence the decision-making process of pedagogical tasks and the subsequent evaluation of the chosen solution. These are the peculiarities of the teachers' professional thinking, the level of their theoretical and practical readiness, practical experience, their individual and personal qualities. The authors consider the mentality and its various typologies as a separate, significant factor that causes the ambiguity of the chosen solution and its subsequent evaluation. The main research methods used were theoretical analysis, questioning, and pedagogical experiment. The authors of the paper present the results of an experimental study conducted with the participation of students studying "Pedagogical Education" to determine their affiliation to a certain type of mentality and the subsequent identification of the tendency for the analysis to depend on the revealed type of mentality to be analyzed. The forming stage of the experiment is described on the example of a practical case aimed at teaching the analysis and evaluation of a pedagogical decision. According to the authors of the paper, the revealed dependence of the nature of evaluation on the type of mentality of students will allow effectively managing the process of training future educators for competent interaction with trainees and solution of problems in professional activity.

Keywords: pedagogical task, analysis and evaluation of the problem solution, professional-pedagogical thinking, mentality.

1 Introduction

The qualitative functioning of the system of education and training is impossible without improving the level of professional competence of the teacher (Rezida et al, 2015), (Auhadeeva et al, 2015), first of all, in the field of solving professional and pedagogical problems. "The pedagogical task is understood as a meaningful pedagogical situation with the goal introduced thereto in connection with the need to cognize and transform reality." (Slastenin et al, 2002). The process of solving problems covers all the activities of the teacher: from designing the goal, selecting methods of action to developing the program of action, implementing and reflecting it.

The subsequent analysis of the solution taken is equally important for improving the quality of pedagogical activity. Some authors consider it as one of the stages in the technology of solving the problem (Slastenin et al, 2002); others define the analysis of the decision as a separate class of tasks in the general cycle of pedagogical management, among which are: a) the task of determining the degree of achievement of the goals; b) the task of identifying the cause of the shortcomings in the work done and determining the reserves to increase its level in the future (Spirin, 1997).

A specific feature of many pedagogical problems is the plurality of solutions and their evaluations. In this regard, the objective of this paper is to determine the influence of the types of mentality

of students on the subsequent evaluation of selected solutions on the basis of identifying and analyzing the factors that cause ambiguity in the decisions of pedagogical problems.

2 Materials, Methodology And Methods

The methodological basis of the study is the psychological theory of personality (Leontiev, 2005) and the theory of the formation of the teacher's personality (Slastenin et al, 2002).

Methods of research: theoretical analysis of scientific literature, questioning, and pedagogical experiment.

The most common in psychology is the understanding of the essence of the problem as the goal of mental activity, during which a search for ways and means of its solution to obtain some cognitive result takes place (Leontiev, 2005). Thus, the process and quality of the solution of the pedagogical task is directly conditioned by the level of development and features of professional-pedagogical thinking (Saltanat et al, 2016). The situational and suprasituational levels typical of pedagogical thinking can influence the process and the result of the pedagogical decision. The situational level is aimed at finding ways to remove contradictions in a given problem situation with reliance on the known constructs of past experience, while not always ensuring the finding of the optimal pedagogical solution, it is believed that it is often resorted to by male teachers, as well as teachers of the exact sciences. The suprasituational level makes it possible to see "extra-situational" characteristics of pedagogical activity in the decisions made, characterized by an appeal to the search for non-standard solutions; the personality characteristics play a significant role in this; the level is more complex and at the same time more effective, more characteristic of female teachers and teachers of the humanities (Kashapov, 2000).

Methods of making decisions by the teacher find their dependence on individual procedural features of thinking, expressed, in particular, in the peculiarities of cognitive style. This term was proposed by R. Gardner (Gardner, 1968). Cognitive style characterizes typical features of intellectual activity: perception, thinking and actions associated with the solution of cognitive tasks in a situation of uncertainty (Klaus, 1987), (Petzold, 1985), (John, 1976).

The reasons for the ambiguous pedagogical decisions can also be the characteristics of practical thinking. It is not inherent algorithmic, which in turn allows a certain arbitrariness in the solution of problems. Due to the lack of practical experience of pedagogical activity, the teacher can ignore information related to the decision. A competent selection of necessary and sufficient information is a key component in the technology of a qualified solution of pedagogical tasks.

It is important to pay attention to the fact that the personal "I" concept of the teacher can also cause a lot of solutions to the same pedagogical task.

The methods of solving problems can be determined, in particular, by certain qualities of the teacher's personality. For example, self-confidence contributes to the development of a propensity for improvisation. However, if this quality is not supported by the acquisition of professional knowledge and experience, but manifests itself only as a rejection of the established norms and rules, this can lead to unproductive decisions. At the same time, practice shows that the accumulation of experience itself does not in all cases lead to the development of a propensity for improvisation, since its manifestation can be restrained by insufficiently developed personal characteristics.

Another factor that determines the specifics of taking pedagogical decisions is manifested in the interrelationship between the professional thinking of the teacher and his/her mentality. Features of the mentality, either consciously or, more often, unconsciously, act as a guide for the teacher in the process of making professional decisions, organized educational and upbringing impact on the personality of the student. At the same time, mentality is defined as a system that is integrated by the religious, ethnic and social systems of society (Pishchik, 2014), (Gulnaz et al, 2016), (Lloyd, 1990).

From the standpoint of ethnic mentality on the one hand, it is about the procedural features of thinking characteristic of a particular culture. So, based on the analysis of the features of the mental activity of various ethnoses, the researchers identified three common varieties of mentality. "Western" – deductive-cognitive mentality, reflecting the surrounding reality in the form of concepts and judgments. It has a practical focus. "Oriental" is more a type of intuitive thinking aimed at contemplation, spiritual self-improvement and development of the inner world, and operating with images. "Traditional" is common in traditional society and focused on the substantive solution of situations of life and specific problems (Khrolenko, 2005). On the other hand, we are talking about national values as an integral component of the mentality, formed depending on traditions and culture, which in turn regulate the behavior of a person, his attitude to reality. People, brought up in different sociocultural conditions, traditions, perceive the world, think and act differently.

Social medium mediates another typology of mentality, based on the ideas of a certain generation of people about the meanings and values of a way of life under the influence of time and new socio-cultural conditions. This concept of mentality allows us to trace the transformation of forms of relations from tradition to innovation, which is caused by changes in value orientations from collectivism to individualism, the change of the I-concept from interdependent to independent, the change of importance of stability to instability in the image of the world, homogeneous discourse to heterogeneous one (Pishchik, 2014).

The identified factors that determine the peculiarities of the methods of solving professional and pedagogical problems, in our opinion, can prove themselves at the stage of the subsequent evaluation of the selected solutions.

In this regard, the practical part of our study implied the identification of trends in the dependence of analysis and evaluation of the solution of pedagogical tasks on the mental affiliation of future teachers. The study involved 91 fourth-year students of Kazan Federal University of both genders aged 20-21 years studying "Pedagogical Education". All of them were residents of Kazan, and we did not take into account their ethnicity and gender. The study was conducted during the study of the topic "Pedagogical situations and pedagogical problems" in the framework of the subject "Practical Pedagogy".

At the first stage of the experiment, we determined the type of mentality of students by V.I. Pishchik method (12). It is a questionnaire consisting of 31 questions with answers. According to the author's data, today we see a transition period from collectivism to individualism, therefore, the methodology reveals four types of mentality: traditional, transitional, innovative and postinnovational. The criteria for differences are the parameters of the self-concept, the meanings of the image of the world, the values of the way of life and discourse. According to the results of the survey, it was found that 75 students (82.4% of the subjects) had an innovative mentality based on the values of vertical individualism, assuming less closed relations, an active attitude, rationality, and orientation to personal achievements. The traditional mentality prevailed in 15 students (16.5% of the subjects), characterized by the values of horizontal collectivism, which imply the following of traditions, more honest and friendly relations between people, and a stable image

of the world. One subject had a postinnovational mentality (1.1%); no transitional type was identified.

At the formative stage of our study, students were presented with a practical case aimed at teaching the analysis and evaluation of the solution to a specific pedagogical task. The task itself was presented in the form of a fragment of the film "The Ron Clark Story", which tells about working with disadvantaged children. The preamble of the task was the following: Ron Clark, a young teacher, gets a job in one of the schools in Harlem, where the so-called "difficult children" study, so he faces many problem situations. One of the students in the class completely ignores homework and lags far behind in the study of mathematics, but succeeds in gambling for money (cards, wagers, etc.), where he shows remarkable ability to score. Ron Clark invites him to a cafe, where during playing cards he teaches him calculations with fractions under the guise of bets. As a result, the student successfully passes the control testing in mathematics.

In addition to the video illustrations of the pedagogical task, the case included:

- algorithm for solving the pedagogical problem;
- algorithm for analyzing the solution to the pedagogical problem (Spirin, 1997);
- a table with criteria and indicators of the evaluation of the result of the solution to the problem.

Criteria for assessing the success of the solution to the problem were taken from the methodology for assessing the level of qualifications of pedagogical staff (Professionalism of a modern teacher: a methodology for assessing the level of qualifications of pedagogical workers, 2011) and adapted by us for the purposes of the study; each criterion was assigned an appropriate score in scores. The content of the criteria is given in Table 1.

Table 1. Criteria for assessing the success of the pedagogical problem solution

No.	Criteria content	Indicator (in points)
1	The suggested variant is anti-pedagogical. Such a variant will aggravate the difficulties and problems of students (violation of discipline, asociality, opposition, conflict, etc.).	0
2	The suggested variant is possible to apply, however, not a constructive response. The situation will neither get worse nor improve. The educational and training effect will be minimal. The negative impact of the decision on the behavior and personal characteristics of the learner in the future is almost not taken into account.	1
3	The solution is aimed at achieving a positive educational and/or learning effect. An understanding attitude to the students is demonstrated; the conditions of the problem situation are taken into account. However, the proposed solution does not take into account the consequences of the chosen method of influence.	2
4	A constructive solution is proposed. It will contribute to the achievement of pedagogical goals, the formation of positive neoplasms in the form of knowledge, skills, personality traits. The decision of the pedagogical task includes setting pedagogical goals, taking into account the traits of the students, anticipating their possible responses and the results of the impact.	3

Students worked individually; their task were:

- to analyze the pedagogical situation;
- to assess the degree of achievement of the goal;
- to evaluate the selected solution in points and to argue their answer on the basis of the algorithm for analyzing the solution of the pedagogical problem.

In case the students gave 0 or 1 point to the result of the solution to the problem, then we considered that the evaluation is negative. Giving 2 or 3 points stated positive evaluation.

3 Results

The third, control stage of the experiment, involved comparison of the students' affiliation to the types of mentality (traditional

and innovative) and their assessment of the result of the solution of the pedagogical task presented in the video.

Comparison showed that 64 people (85.3%) of 75 students with innovative mentality gave a positive assessment to the solution of the pedagogical task made by the film hero Ron Clark, and 11 people (14.7%) gave negative marks.

Opinions among 15 students with a traditional mentality also divided: nine gave a positive rating (60%) and 6 people (40%) – negative.

The distribution of students based on the type of mentality and the assessment of the solution of the pedagogical task is shown in Fig. 1.

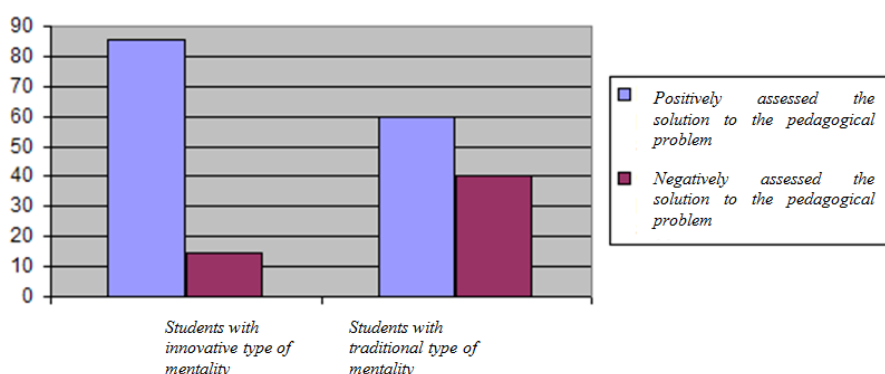


Fig. 1. Distribution of students with innovative and traditional mentality giving positive or negative assessment to the solution of the pedagogical problem

Here is an example of the argumentation of positive evaluation by the students with innovative mentality: "Ron Clark tried not only to improve the knowledge of the student in mathematics, but also to increase his self-esteem when he pretended not knowing how to play cards. This served as an incentive for the boy, who, having believed in himself, successfully passed the exam." The argument of the majority of students with a traditional mentality who negatively assessed the solution of the problem was approximately the following: "None of teaching goal, for example, successful passing of an exam, can justify the teacher's support of such a lesson as playing cards. The educational consequences of such a decision bear much more lamentable consequences than failure in the exam."

4 Conclusions

Methods of solving pedagogical problems are determined by the peculiarities of professional thinking, the level of theoretical and practical readiness, and the individual and personal qualities of the teacher.

The obtained results reveal a tendency for the analysis and evaluation of the solution of pedagogical problems to depend on the mental affiliation of future teachers. Taking into account the mental characteristics of students, in our opinion, will allow us to manage the process of making pedagogical decisions at the learning stage and introduce appropriate corrections into it. We believe that this fact can be used in the organization of interactive and problematic types of training, the preparation of research cases, organization of discussions and, in general, for the development of students' analytical abilities when solving pedagogical tasks.

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