

Teacher's Psycho-diagnostic Activities in School Educational System

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The urgency of the problem stated in the article stems from the fact that in modern conditions the study of the psycho-diagnostic component of the teacher's activities is relevant in practical terms, since the functions of these activities affect the efficiency of pedagogical activity and the educational process itself, including the effectiveness of students' learning activities. The purpose of the article is to examine the role of teacher's psycho-diagnostic activity in the school educational system. The leading method of studying the problem is an empirical method of research (surveys, testing, content analysis), methods of mathematical and statistical processing, allowing a complex consideration of teachers' diagnostic activity characteristics. The study involves 100 teachers and 420 secondary school students, 14-15 years of age. The article reveals that the psycho-diagnostics, carried out by teachers, is characterized by haphazardness, and does not rely on the psychological and pedagogical technologies. The teachers carry out activity diagnostics more successfully, identifying its goals and methods. Psycho-pedagogical technologies of forming an ability to carry out personal diagnostics improve teachers' overall psychological culture. The study deepens the understanding of the psycho-diagnostic component, contributes to the development of the teacher's professional activity, expands teacher's psycho-diagnostic opportunities, and determines the levels of the teaching staff's psychological culture development. The practical significance of the study results is in their direct use for improving teachers' psychological training and other kinds of professional training in the "man-to-man" sphere.

Keywords: teacher, psycho-diagnostics, teacher's professional activity, teacher's psycho-diagnostic function, professional competence

INTRODUCTION

The relevance of the research problem

The main task of the school is "purposeful education of the individual student". To achieve the aim, the school must create all conditions for the development of every child's abilities to the full satisfaction of his inclinations and interests. All this

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can be realized only if both the school and teachers know the every student's individual characteristics. In such case the teacher will be able to guide the process of the student's spiritual development, effectively assist him in overcoming the difficulties of development and in his personal self-cultivation. "The school, the teachers need to systematically study the process of students' personal development, monitor the progress of their spiritual growth closely and with interest, observe the development of their abilities, interests and inclinations" (Friedman, 1997).

In this regard, an important aspect is training a skilled teacher who acts in dual capacities – as a teacher of a certain subject and a teacher-psychologist ready to support children individually, taking into account their personality and age. Systematic psycho-diagnostics and every student's development correction should not be done by a psychologist alone. A psychologist heads and directs this work, but the implementation of psycho-diagnostics and correction and development activities should be fulfilled by all subject teachers and class teachers. However, as practice shows, not all of the recommendations proposed by a psychologist are clear for the teachers and feasible for them if there is a need in a fundamental change in the situation. The impossibility to fulfill the proposed recommendations arises due to the insufficiency of the teacher's psychological culture and competence.

The content of teacher professional standard, its third part in particular, deals with the development of personal and professional competences necessary for teacher to implement developing activities, including the diagnostic ones (Order of the Ministry of Labor of Russia #544n, 2013). This part of the teacher's professional standard means (most suitable for the study are selected here): an ability to identify in the course of monitoring a variety of issues associated with the peculiarities of the child's development; an ability to read professional documentation (on psychology, speech therapy, etc.); possession of elementary methods of psycho-diagnostics of students' personality and age characteristics, implementation of the monitoring of the child's personal characteristics together with a psychologist; an ability (together with psychologists and other professionals) to make an individual student's psycho-pedagogical characteristics (portrait). Therefore, teachers need to possess the necessary knowledge, skills and labor actions that form the basis of teacher's professional competences. However, it should be noted that the teacher competence level required to address psycho-diagnostic tasks that are stated in the professional standard is unattainable in the near future. Currently, educational networking, understood as horizontal cooperation between educational institutions to disseminate functional resources to achieve common goals and common objectives, makes it possible to resolve this problem (Networking as a factor in the development of an innovative educational institution, 2016). Introduction of continuous teaching practice in teacher training colleges will enhance the positive motivation of all participants in the educational process for learning and teaching, which as a result will lead to higher education quality and the development of key competencies.

The insufficiency of the teacher's psychological culture and competence is associated with the fact that just a few years ago domestic higher educational institutions paid little attention to students' practical psychological and pedagogical training: teacher training total budget of time allotted only from 12 to 18% to general pedagogical and psycho-pedagogical training. Therefore, the practicing teacher needs to replenish psychological and pedagogical knowledge and relevant skills. It is for this reason that a vast majority of teachers aim to fill the gaps in psychological and pedagogical knowledge and skills on a self-supporting basis. Their knowledge of teaching methods was specified in the course of teaching in school. However, there was not any special psychological practice for students of teacher education, and the knowledge of psychology was used only for psychological and

pedagogical analyses of the lessons. The consequence of this is that many teachers do not understand the student's individual personality. Only a few of them, on their own, thanks to a deep analysis of their own practical activities and natural intuition successfully apply their psychological experience accumulated in years of teaching.

MATERIALS AND METHODS

Research methods

The study uses both theoretical and empirical research methods: analysis of psychological and pedagogical literature on the topic; a survey based on a specially created questionnaire, revealing the contents of psycho-diagnostic component in teacher activity; testing; content analysis; methods of mathematical and statistical processing. The following methodology was used: the methodology "Personality Orientation"; Eysenck questionnaire to determine the type of temperament; tests on thinking ("Study of thinking flexibility", "Internal plan of action (option 1)", "Study of thinking speed").

Research experimental base

The experimental work was carried out in the course of educational process in Elabuga and Aznakaevo secondary schools. The study involved 100 secondary school teachers having different length experience in pedagogical activity (all teachers have a higher education) and 420 secondary school students aged 14-15 years. The entire sample of students was roughly divided on the basis of academic performance into 3 groups: the so-called "top students" (13.3%), "average students" (45.7%) and students who show low academic performance (41%) accordingly.

Research stages

The first stage is devoted to the study of the current state of the problem and preparation of the research theoretical base; a set of techniques for the study of the effectiveness of the psycho-diagnostic component of teacher activity is developed; the problem is formulated, the initial parameters of the study and its conceptual apparatus are defined.

The second stage includes the theoretical aspect of the study of the problem, definition of positions, and construction of hypotheses. It is accompanied by a pilot study in which hypotheses are tested, assumptions are refined, and the empirical data are collected and analyzed. The experiment evaluated the overall hypothesis of the study. During the experiment an intermediate ascertaining testing was conducted.

During the third stage the results of the work were summarized and systematized; theoretical propositions were refined; the study materials were processed.

RESULTS

Psycho-diagnostic component of teacher professional work

According to A.K. Markova the psycho-diagnostic function is seen as lying at the heart of the teaching profession, as it is necessary for the development of the students' personalities and individualities first of all to be able to study them (Markova, 1993). The psycho-diagnostic component is implemented mainly through the skills included in the Gnostic and projecting components of pedagogical activity.

It is our standpoint that in the course of psycho-diagnostics the teacher should not be limited solely to characterization of students' knowledge, isolated mental processes and personality traits, but must connect together all the manifestations of the student's personality to see causal relationships and plan ways of correction and development.

Experience of schools where there is a psychologist shows that he alone, without colleagues' (teachers') qualified help cannot serve hundreds of teachers' requests, and at the same time cope with the whole list of tasks and functions. Therefore, all school teachers should participate in the activity of psychological services (Gilbukh, 1989). Especially it concerns those schools where there is no school psychologist position, and school teachers who do not have appropriate education have to take on some of the functions of the psychologist.

The teacher in implementing psycho-diagnostic activity, in our opinion, is to develop and use a variety of methods provided for recognition of student's individual psychological characteristics. Teachers do not have enough time for an in-depth study of the individual and for duly participation in the educational process at the same time; therefore, they have no special tools for the former. The teacher's diagnostic activities aim at obtaining timely information about different objects and subjects through such diagnostic procedures that do not require large expenditure of time and effort, are simple in design and can be implemented in the course of various activities.

The psychologist's activity and educator's psycho-diagnostic activity differ by the place they allot to the diagnosed student in this process: the psychologist diagnoses it from the outside, and the teacher is inside this activity. The psychologist performs primarily personal or ascertaining psycho-diagnostics, i.e. individual personality and individual components are diagnosed only at a certain time. In contrast, teachers perform a dynamic psycho-diagnostics, for they meet their students more often and can see various manifestations of their personalities in different situations. That is, the teacher's psycho-diagnostic survey covers the student's personality as a whole or its individual components, such as analysis of students' oral and written answers, their individual behavior, the student's mental state, both individual and collective, shortcomings and deviations in the training activities and students' behavior, as well as some features of student's mental individuality and educational process in general (Minakhmetova, 2003; Kamalova & Zakirova, 2015; Mokeyeva, Zakirova & Masalimova, 2015; Zakirova & Koletvinova, 2014). The necessity to implement qualified psycho-diagnostics demands that the teacher should acquire special techniques and methods of studying personality characteristics, collective characteristics and the state of educational process as a whole.

The teacher's implementation of psycho-diagnostic component of professional activity can be carried out at different levels: common pedagogical level; organizational and pedagogical; systematic-pedagogical; and the one with psychological content dominance. Most preferred is the level of psychological content dominance. This level involves the use of psychological and pedagogical knowledge and awareness of the current state of psychology and pedagogy; the ability to relate the students' difficulties with deficiencies in the teacher's work, etc. This level allows implementing psycho-diagnostic functions listed by N. I. Shevandrin (1998): establishing the feedback; evaluation of effectiveness; educational and energizing effect; communicative function, the function of personality designing; the forecast function as a prediction of the student's future development.

In the process of psycho-diagnostics implementation teachers use (in a descending order) less formalized diagnostic methods (conversation, oral and written survey, etc.), objective methods (tests, questionnaires, scaling, experimental evaluation, content analysis, etc.), concilia, etc. (Shmelev, 1996).

The teacher's main psychological and pedagogical skills in psycho-diagnostics

Specially designed questionnaires help to determine skills that are the foundation of the teacher's psycho-diagnostic activity. The analysis of the teachers' responses allows identifying and grouping the main challenges they face in psycho-diagnostic functions implementation: difficulties in the diagnosing individual student upbringing; in determining individual education level; in formulating the conclusion containing a forecast for the student's further development; in the nature of theoretical training in psychology; in developing recommendations for psycho-correction and developmental work; in the lack of practical help.

The results of the teachers' survey, which set the task to assess their knowledge of the term "psycho-diagnostics, show that 30% of teachers do not understand this concept. More accurate definitions of the concept are given by 55% of the surveyed teachers, but in their opinion psycho-diagnostic activity is reduced only to testing and questioning without an analysis of the obtained data. Only about 15% of the teachers understand that diagnostics includes measuring individual personality psychological characteristics.

The importance of psycho-diagnostic function in the teacher's activity is realized by 56% of the surveyed teachers, which is evident from their statements, such as, for instance, "Psycho-diagnostics identifies individual characteristics of students and contributes to the determination of the best approach to the student"; the remaining 44% of teachers do not show subjective activity in the implementation of these activities and therefore do not realize its importance to the full extent.

The results of the survey allowed dividing the entire sample of teachers into two groups according to the levels of psycho-diagnostics acquisition. The first group consists of teachers with a high level of diagnostic functions ownership. These teachers are not interested in just the final result in the form of knowledge, but rather in the student's changing and evolving personality and identity. These teachers take into consideration the level of student's certain characteristics development and assign tasks aimed at development of and compensation for the missing properties.

The second group comprises the so-called "teachers-craftsmen" showing a low level of psycho-diagnostic functions ownership. These teachers do not look at what lies at the basis of the child's dynamics and development. For these teachers the main thing is the final result. Such teachers demonstrate the formed pedagogical attitudes towards students that give a momentum to either positive or negative projecting of the student's development.

Content analysis of experimental forms allows classifying the psychological concepts used by teachers into three groups depending on the frequency of their use in the teachers' speech.

The first group consists of most frequently used concepts: person's activity, game, will power, age, education, children's upbringing, activity, interests, leader, observation, memorizing, mood, memory, speech, abilities.

The second group consists of rarely used concepts: intuition, melancholic, motive, phlegmatic, perception, psychological climate of the collective, personality orientation, sensation, sensitivity.

The third group consists of the unused concepts: the accentuation of character, autogenic training, affect, skills interference, reflection, frustration, empathy, internal plan of action.

The analysis of the characteristics gives reason to believe that teachers with a high level of psycho-diagnostic component ownership give the most complete specifications of their students, not only do they list the students' traits, but also

reveal the students' strengths and shortcomings, preventing them from achieving utter success. They do not just carry out the analysis of the student's behavior, but also map further ways of the learner's development that are very specific and clearly defining how and what the student must undertake to correct mistakes notably manifested in his actions, as well as show ways to improve the student's personality.

Teachers with low psycho-diagnostic functions ownership see only those students' qualities that interfere with (in relation to students showing low academic performance) or contribute to their work. The more successful is a student in academic performance, the better references of him are made by the group teacher. If the student is not diligent in studying the subject or misbehaves in the classroom, the teacher generally states these features not trying to find what causes them.

Describing the students, all the teachers display a sense of prudence, measure and tactfulness, which excludes statements that may injure students or hurt their pride.

Research has shown that not all the surveyed are sufficiently proficient in scientific psychological concepts.

As the study results show, the teaching staff are mainly at an ordinary and initial stage of organizational and pedagogical level of psycho-diagnostics implementation.

The teacher's ability to determine the student's personality orientation

In the course of the study the test results of students aged 14-15 years and the results of the teachers' survey in diagnostic procedures have been compared.

The main evaluation criterion has been focusing on the task, because a common stereotype among teachers is, as noted by B.G. Ananyev, that the teacher's assessment of the student's personality depends on the student's academic performance.

The study analyzes the relationship between the indicators of focusing on the problem, academic performance and individual student's self-esteem. Sampling study on the criterion of "focusing on the task" (FT) in top students' groups shows 28.6 points, FT of "average" students is 26.2 points and in the group of students with low academic performance FT is 25.2. The teachers' survey gives the following results: top students' FT is estimated by the teachers at 38.3 points, "averages" - 30.6 points, the low academic performance students' FT is 25.8 (Table 1).

In contrast to an insignificant difference between the students' evaluations, the teachers' survey data show significant differences in the assessment of students' FT (academic performance), with a maximum elevation score in the group of "top" students by 34.9%, "averages" assessment is overestimated by 15.3% and low academic performance students by 2%. It is also found that teachers overestimate top and average students, while the teachers' evaluation of low academic performance students is more objective. The above is confirmed by the methods of mathematical statistics using Student's t-criterion, i.e. the study proves that teachers overestimate assessment of "top" students ($t = 4.858$; $p < 0.01$) and "average" students ($t = 4.305$; $p < 0.01$), as concerns students with low academic performance, the assumption of overstating their assessment is rejected ($t = 0.064$).

The obtained results suggest that those teachers who have a personal orientation towards a child are closest to determining the students' individual orientation, as the test results obtained by a psychologist prove.

Table 1. Focusing on the task

	Top students	"Averages"	Low academic performance students
Students' Testing	28.6	26.2	25.2
Teachers' evaluation	38.3	30.6	25.8
Students' self-esteem	34.2	28.3	25.2

Thus, the ability to diagnose the person's orientation as a component of the teacher's psycho-diagnostic functions does not depend either on the length of service or on the subject taught. Therefore, it is believed to depend to a great extent on the direction of the teacher's personality.

The teacher's ability to define the type of students' temperament

The ability to determine the students belonging to the different temperament types allows the teacher to find an individual approach to the student, vary in the desired way methods of educational influence, and understand the student's behavior and possibilities (Minahmetova, Epaneshnikov & Shagivaleeva, 2012).

The teacher's ability to define the students' temperament types does not depend either on the teacher's length of service or on the subject they teach; it depends largely on the direction of the teacher's personality.

The results presented in Table 2 suggest that the teachers diagnose, are aware of and consider in their work the types of the student's temperament, though not in terms of scientific psychology, but at the level of everyday psychological knowledge. Teachers find it difficult to characterize the children in terms of categorical and conceptual apparatus, as they try to remember the psychological terms and lose sight of the real identity of the child. The transition to the elements of practice shows that the teachers are better when diagnosing the child's psychological characteristics in activities. Not possessing accurate methods of diagnosing the properties of the nervous system and their manifestations, the teacher systematically observes the students' characteristics, and approaches their appropriate interpretation.

The ability to diagnose student's thinking

The differences of students' mental activities are mainly manifested in such qualities of mind as mind's depth, its flexibility, stability, consciousness, etc. Table 3 shows the distribution of the top, average and low academic performance students into groups, depending on the successful solution the given problem. The results testify to a certain correspondence between the academic performance and flexibility of thinking. Similar results were obtained in relation to fluency, and the internal plan of action.

Table 2. Students' temperament types, (%)

Predominant temperament type	Top students		"Average" students		Low academic performance students	
	test	teachers	test	teachers	test	teachers
Choleric subject	57.2	51.4	79.3	54.6	62.7	50.8
Sanguine person	21.4	29.4	16.7	22.4	28	24
Choleric – sanguine	14.3	19.2	2	21.7	7	19
Melancholic – phlegmatic	7.1	-	-	-	-	-
Melancholic	-	-	2	1.3	2.3	3
Phlegmatic	-	-	-	-	-	3.2

Table 3. Levels of students' thinking flexibility development, (%)

	Students' testing			Teachers' evaluation		
	Average	Low	high	Average	low	High
Top students	85.7	-	14.3	30	3.3	66.8
Average students	62.5	31.3	6.2	60	9.8	30.1
Low academic performance students	60.5	30.2	9.3	62.8	31	6.1

The research has shown that teachers cannot adequately assess the qualities of the students' mind. An ability to define the mental qualities does not depend on the teacher's length of service, subject taught and teacher's personality orientation. This can be explained by the fact that teachers do not understand the process of thinking itself, find it difficult to define the boundary of the mind indicators of quality (high or low).

As the research shows, the ability to carry out students' psycho-diagnostics is not generated independently, by itself and its development does not depend on teaching experience and the subject taught. It reveals some relationship of psycho-diagnostics of the whole class and every student and the teacher's personality orientation and the goals of psycho-diagnostics. The more the teachers are involved in the educational process, the more successfully they recognize students' individual qualities. Teachers, who accidentally come to work in the sphere of education and therefore have orientation towards their own personality, exhibit inertia in the implementation of students' psycho-diagnostics.

Analysis of the forming experiment results

The study suggests that the teachers are in need of psychological knowledge. Thus, it obviously becomes necessary to look for the causes of the teachers' poor knowledge of psycho-diagnostics in the shortcomings of vocational training, which is carried out in higher educational institutions. The formation of ability to carry out psycho-diagnostics should take place in the course of specially organized training.

A specially designed curriculum, in the form of a special course for secondary school teachers, aims at improving the quality of the students' psycho-diagnostics. The same teachers that participated in the diagnostic procedure were involved in the forming experiment.

The results of the intermediate ascertaining show that significant quantitative and qualitative changes of a positive nature occurred in students' psycho-diagnostics. For example, the greatest increase in indicators is observed in determining the temperament type of "average" students ($p \leq 0.01$). If prior to the special course teachers determined the choleric temperament type of top and average students more precisely, proper determination of other types of temperament in these groups of students caused some difficulty; while after the teachers' taking a special course, indicators in determining the type of student's temperament have become close to the results obtained through students' testing ($p \leq 0.05$).

Measurements that have been taken after the training program show that growth of rates is observed not only in determining the students' temperament types but also in evaluating the qualities of the mind, personality orientation, etc.

This programme resulted in the improved quality of psycho-diagnostics implementation. Diagnoses of the students' individual characteristics have acquired a qualitative and informative character. The successful transition of the teaching staff to other implementation levels of psycho-diagnostic component has become possible thanks to the special training course "The teacher's must at school is to be a psychologist".

The teachers who took a special teacher training course have shown a relatively higher developed level of skills in psycho-diagnostics. This makes it possible to talk about an increase in the level of the teachers' psychological culture and a higher level of the implementation of psycho-diagnostic activity that is systematic-pedagogical, with the dominance of psychological content. This implies that the ability, generally speaking, can be formed.

DISCUSSIONS

In recent years, the methodological and theoretical foundations of psycho-diagnostics have been significantly deepened: the psycho-diagnostics conceptual tools have been developed (Burlachuk, 1999; Gilbuh, 1989; Gurevich, 1989; Shmelev, 1996), the structure of psycho-diagnostics components was defined (Anufriev, 2006; Kostromina, 2006). But researchers have no single viewpoint on the structure of psycho-diagnostic component from the standpoint of the teacher's professional activity. Scarce enough are works aiming at identifying the teacher's skills in psycho-diagnostics, or the ones studying the levels of the teacher's readiness for the implementation of psycho-diagnostics.

CONCLUSION

Psycho-diagnostic problems are among the most important in the application of psychological knowledge in various fields of human activity with the purpose of personality comprehensive development and an adequate use of its opportunities. At present, in connection with the implementation of the school reform, these issues are of particular relevance in the field of education, and in the first place in secondary school practice.

There is evidence that the psycho-diagnostic component of the teacher's activity can be qualitatively improved by the provision of qualified psychological and methodological assistance.

Introduction of continuous teaching practice in teacher training colleges will enhance the positive motivation of all participants in the educational process for learning and teaching, which as a result will lead to higher quality of education and the development of key competencies, stated in the professional teacher standard required for the decision of psycho-diagnostic problems.

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