

Pedagogical Monitoring as an Instrument of Assessing Effectiveness of Using Technological Approach in Teaching Rural Students

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Abstract: Currently there are notable “breakthroughs” in educational research focused on quality upgrading of a rural school. Strategic and practical projects concerning rural school upgrade related with such concept as their restructuring are discussed. An own view on this issue is provided not only by the experts with a scientific but also by the employees at rural schools as well as the heads of government operating in rural areas. One of the most relevant is a comprehensive humanization of a rural school associated with deep qualitative transformations of its educational environment on the basis of personality-oriented development concepts. These changes relate to the introduction into the activities of a rural school a new hierarchy of educational values, the provision of an adequate current social situation of models, the new ideas about a graduate’s image as well as the updates in a didactic paradigm. In our study, the importance of the technological approach during the training of students in rural schools is justified. The data on the extent of rural teacher training to the development and application of pedagogical innovations are presented, the negative factors hindering the modernization of the educational process are revealed. The results of a comprehensive pedagogical monitoring concerning the status of this problem are presented. The reasons of a rural teacher insufficient preparation are determined to introduce a technological approach to training.

Key words: Technological approach, pedagogical monitoring, professional identity, rural school, technological competence, student-oriented technologies

INTRODUCTION

The topicality of investigating the problems of rural schools their scientific-pedagogical support is indisputable as their contribution to the structure of establishments of general education of the Tatarstan Republic according to the last statistical data accounts for >74% (Zaykin, 1998).

Rural school proved to be receptive towards new mechanism of management in the years 90s of 20th century: training students for farm labour and so on.

Changes in economic life of Russia were conducive to intensifying the social differentiation to be penetrated into educational sphere as well. We are to determine the major priorities which will objectively estimate the state of rural school and create the basis for its future prosperity.

One of them is all-round humanization of rural school associated with profound qualitative changes of its educational environment on the basis of person-oriented conception of development. So, profound conceptual-methodological analysis of value-meaningful

guidelines and strategic orientations of the development of rural school was conducted by Bondarevskaya and Pivnenko (2002).

A well-known educator I. Guryanova thinks that «ungraded rural schools in Russia permanent category in Russian education, being generated by geographical peculiarities, territorial disconnectedness and remoteness of many settlements. Educative advantages of small schools are enormous they are never replaced by big schools. Teaching and educating rural children bears a communal character to large extent, gives the pupils access to ethic values and norms of morals of peasants» (Guryanova, 2004).

Department of Education and Science of the Russian Federation has developed «The conception of restructuring the network of general establishments located in the rural district» (Suvorova, 2004). In G.F. Suvorova’s judgment, the conception is based on monetary approach, cost cutting that leads to dying small villages (Suvorova, 2004).

MATERIALS AND METHODS

In writing the study, it has been applied the theoretical and empirical methods: studying and analyzing the methodological, biological, psychological and educational literature, studying normative-methodological documentation, studying pedagogical experience, observing educative process, testing, questioning, «brainstorming», discussions, role trainings (Fig. 1).

Research: Education sciences have accumulated solid stratum of researches in the field of development of didactics in rural school. The general tendencies of development of pedagogical process in rural school was thoroughly considered by Akbashev (1992), Alekseyeva (1985) and others. The concrete methods of education and their scientific grounds are reflected in the works by N.V. Yerkhova, M.I. Zaykin, E.I. Kubyshkina, V.S. Kuzin, Ye.B. Martynova, V.P. Strezikozin, G.F. Suvorova, T.Ya. Shpikalova, Ye.V. Bondarevskaya (Akbashev, 1992; Alekseyeva, 1985; Bondarevskaya and Pivnenko, 2002; Zaykin, 1998; Martynova, 2004). Interesting propositions on organization of activity in rural school on model of ego development conceptions have been elaborated in the research work by A.V. Oishchenko.

The strategy of variation development of rural school, characteristics of various types and models (gymnasiums and lyceums, schools-complexes, agro schools and others) have been considered in the pedagogical research works by I.P. Guryanova, N.A.

Yermolayeva, A.Ye. Kondratenkov, G.F. Suvorova, V.Kuzovlev, N.Pruchkina, N.Scripova, L.Sokolov, S. Tsybikova, Zh.G. Kaleyeva and others (Yermolayeva, 1990; Kaleyeva, 2002; Kuzovlev, 2001; Pruchkina, 2001; Skripova, 2004; Tsybikova, 2001).

However, there are quite a lot of unsolved problems in the field of education of pupils in rural schools. The following may be referred to them:

- Not full filling the classes in rural school that makes impossible to use many forms of team work
- Absence of additional classes for each age parallel, creating difficulties in daily preparation for different lessons in different forms and changes of kinds, character and level of activity
- Absence of load on subjects presenting difficulties with staffing the school that makes an educator teach several subjects for which he turns out not always to be prepared in an equal degree
- Combination at a lesson of two forms of different ages requiring attention sharing of a teacher, switching over to different topics and activities

At the same time, rural school ensures an individual approach to education that is grounded on the detailed study of strengths and weaknesses of a child his individual peculiarities, learning and creative abilities. Then, it makes possible to apply the most optimal variant of the individual approach-personality-centered education that may ensure the development and self-development of a pupil, disclosure of educational and creative potential (Kirsanov, 1980) (Fig. 2).

Many teachers of rural schools meet with difficulties in applying of personality-centered technologies of education (Cornelius-White, 2007).

Thus, the study of general educational experience of teachers of rural schools and also the analysis of scientific literature permits to note that today in pedagogical theory there is no clearly developed conception of education organization in ungraded school with regard to the ideas of individualized approach to the students and appropriate for this idea technology and methods of education. Just the absence of such technology and methods hinders the possibilities of using the technological approach on the basis of ungraded school that provides the motion of students for full self-paced acquiring knowledge and in terms of individual unique trait of every personality that made for appearance of this study in which it has been revealed the methods being developed by us of pedagogical monitoring of effectiveness of individualized technological approach to teaching the students in rural schools.

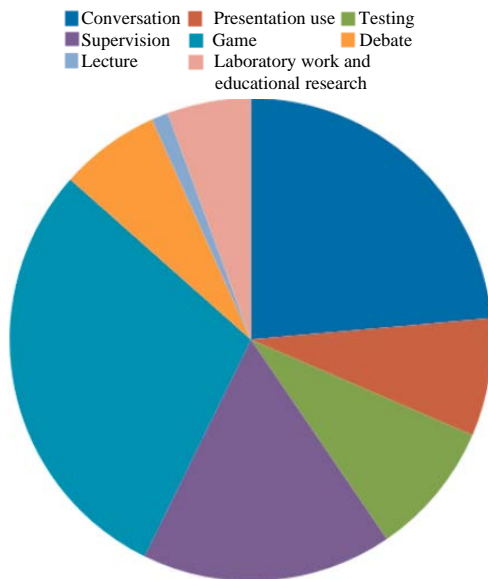


Fig. 1: The methods and receptions applied at lessons basic

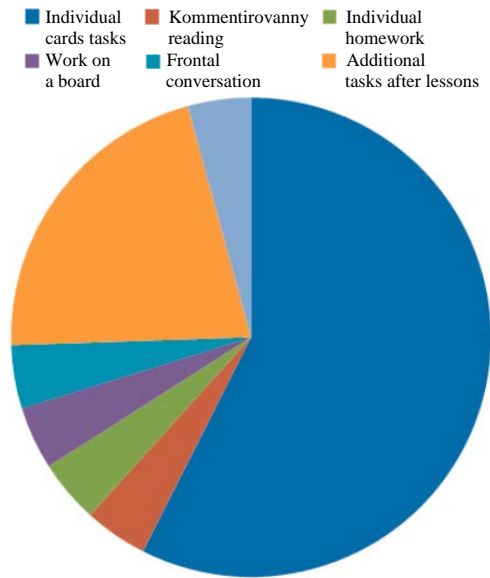


Fig. 2: The relation of teachers to the individualized training

In N.M. Mochalova's judgment technological approach to teaching is «an ordered set of standard procedures for fulfillment of practical educational actions and intellectual operations towards which this technology is directed ...» (Mochalova and Mochalova, 1997).

Application of technological approach to teaching requires finding out readiness of rural teachers for mastering and applying of the proposed pedagogical innovations and revealing hindrances for modernization of teaching process.

The main point of monitoring in present pedagogical science is «defining and estimating conducted educative activities» (Shatalov, 1985). In real educational process the monitoring is closely connected with all functions and stages of control therefore, the considerable characteristics can be examined only in relation to the other education control process in school. The monitoring performs its assignment only when it represents control system diagnostics.

It should be also noted that the subject of monitoring is diverse: by means of which one can review education quality, estimate teacher's work quality and other principal pedagogical objects in their development and determination towards perfection (Andreyev, 2000).

Before speaking about pedagogical observations it is necessary to characterize the very object of observation that is the teacher. In our viewpoint, his characteristic of significance is humanistic-oriented vocational self-consciousness (Levites, 1998).

Vocational self-consciousness is understood by us as competent awareness of oneself and one's destination

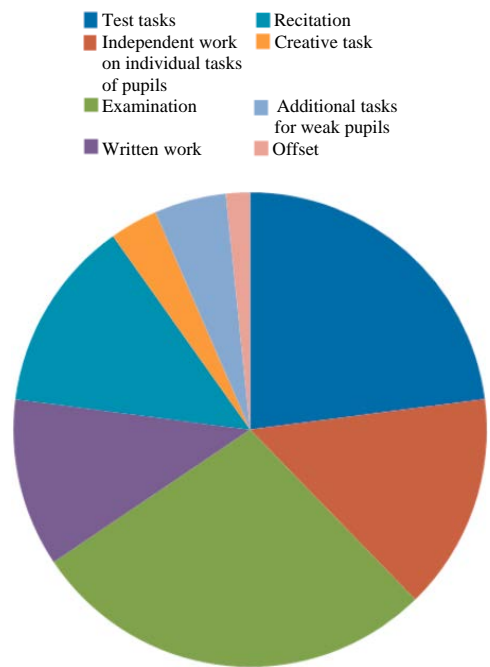


Fig. 3: Ways and methods of estimation of pupils' knowledge

in all typical professional situations of teaching and education of pupils reflecting specifics of educational environment and sociocultural requirements of a rural region.

We have paid special attention to the development of methods of monitoring of vocational self-consciousness of a rural teacher by parameters of personality premises to mastering modern technology in education. On this basis, we have developed the methods of monitoring of vocational self-consciousness according to the following indicators (Fig. 3):

- Positive value treatment of the very phenomenon «rural school». We associate the importance of this indicator with that the teacher «creative» must love his professional environment (Filonov, 2001)
- High and versatile estimate of his creative potential. It is estimated the readiness of the teacher to perform his duties with creativeness to make authoring contribution into any forms of his activity
- Ability to see and overcome difficulties of the professional labour of the teacher in rural school
- Wide and mobile technological competence of the rural educator his striving for constant perfection of his prowess. This indicator shows the general didactic culture of the teacher, prevalence of reproductive and productive methods of teaching in his work (Freeman, 1989)

- Humane treatment to his students and intensity of inclination for personality-oriented technologies of teaching (Levites, 1998)
- Presence of particular regard for evaluation and self-evaluation of effectiveness of the teacher's professional activity. This indicator allows to measure the level of excellence in ability to objectively evaluate the attainable results which is depended the further improvement of the adopted teaching system
- Ability to determine the methodological strategy of teaching a subject on the basis of option of educational programmes and textbooks, presence of own authoring learning aids
- Developed professional-projective thinking. The teacher, who is capable of development of educational process, must be able to project and correct the framework in which the highest educational result is achieved in educating students by means of intensification of creativity of teaching

RESULTS AND DISCUSSION

On the basis of the mentioned indicators we have made an expert diagnostic examination as to the developed vocational self-consciousness in rather solid group of the teachers of rural schools, of the Kukmor region (36 pedagogues), the teachers of rural schools of the Vysokogorsk region of Tatarstan (32 pedagogues) and ungraded school No. 59 in Kazan.

Examination and generalization of the obtained data pursued the objective of determination of ability of the rural teacher to cardinal change of his educational strategies and tactics of teaching activity. The obtained information is to allow to determine the state of readiness to apply the technological approach to teaching and to reveal the factors to outline the complex of measures of «bringing» vocational self-consciousness of the rural teacher to the state of the needed level (Kashin, 2003). Let us analyze the most substantial conclusions on generalizing the results of the survey by questionnaire:

- Value treatment of the phenomenon «rural school». In the teachers' view to the advantages of rural school one refers few students and possibility to work individually, close contact with their parents, more control over working education
- The level of developed creative potential of the rural teacher. After analyzing the answers we have distributed the teachers according to the three levels of Creative Potential (CP) (Table 1)
- It is seen from the Table 1 that self-evaluation of the creative potential of the rural teachers is middle for the most part

Table 1: Information on the levels of developing creative potential of the rural teacher

Levels of realization of CP	Distribution of the questioned teachers according to the levels of CP (%)
High (01)	2.17
Average (02)	89.13
Low (03)	8.69

Table 2: List of difficulties to be encountered in teacher's educative work

The main reasons	Percentage
Low completeness of classes (01)	1.38
Weak educative material resources (02)	48.61
Need of work in completed classes (03)	0.00
Difficulty of methods selection (04)	22.22
The curricula and textbooks insufficiently taken into account the specifics of rural schools (05)	27.77

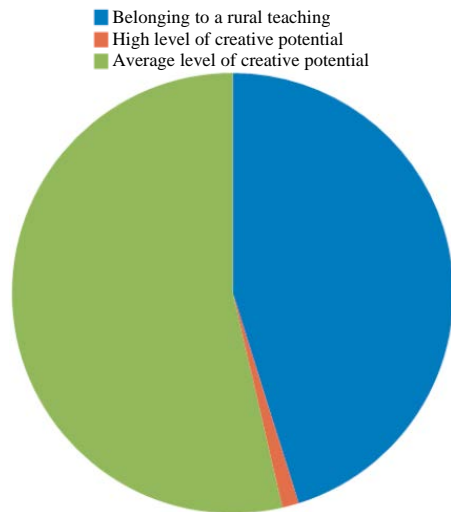


Fig. 4: The analysis of indicators about professional belonging to teaching

- Further there are analyzed the difficulties the teachers encounter in their teaching practice (Table 2)

The data of Table 2 shows that among the hindering and constraint factors are first and foremost the difficulties of teaching in elementary school as distinct from the teachers of primary and secondary rural school.

Here again the traditional approaches to individualized education prevail. Here one can see that the traditional approaches prevail in the methods of controlling knowledge.

Generalizing the analysis of some indicators given in Fig. 4, overwhelming majority of teachers questioned estimate their professional identity to rural teachers (75%). Unfortunately, just over 2% of the teachers questioned note high level of their level of creativity. Most of them class themselves according this indicator as to the average level (89%).

If to estimate the level of technological mobility of the rural teacher it should be mentioned about his adherence mainly to the traditional and play techniques of training. It leaves much to be desired his competence in the field of knowledge of up-to-date personality-centered techniques in organization of instructional work at lesson.

Let us analyze the way of carrying out our educational experiment and its results on the basis of modernization of its didactic and technological and creative components. The experiment had long base and included the whole group of experimental schools of Tatarstan: the Panovsk, Sulabash, Garinsk rural schools in the region of Vysokogorsk and also Verchnekukmor, Nyrmin rural schools of the Kukmor District. In all, the experimental work covered 132 students and 67 teachers. Besides, the supervised schools adequate on their initial experimental data were defined.

With the aim of rather large-scale realization of experimental programme we trained the teachers-experimenters (10 human). They were provided with necessary guidelines and were positively aimed for realizing this programme. The developed technological scheme was applied in teaching different subjects (biology, geography, the world around, elective course «Laws of Ecology»). At the initial stage, it was conducted the ascertaining experiment in mass practice and also in experimental and supervised schools. The pedagogical measures were carried out in relation to the parameters interesting for us on both personality of the students and the teachers. At the beginning of the study, we gave the data according to the integral indicator of readiness of teachers for adoption of pedagogical innovations such as the level of developed vocational self-consciousness. Concerning the students, at the fixed stage in accordance to the expected results we were interested in the following indicators: educational progress, the level of independence, learning activity, ability to interaction, awareness of individual educational style. To determine the dynamics of achievements of the students in the experiment (the teachers and the students) it has been conducted their differentiation on all the indicators mentioned above.

The characteristics of the groups differentiated by us are the following: differentiation of teachers according to groups depending on their vocational self-consciousness: high, average and low levels. High level of awareness of vocational self-consciousness was characterized by the developed value positive attitude to rural school as professional environment; high manifold estimate of own creative potential, innovation activity, presence of sufficient technological competence. The teachers of the

average level of vocational self-consciousness was distinguished by more moderate indicators: they do not prefer the methodical innovations, are not able to apply innovation techniques of teaching, they treat personality-centered technologies with restraint. The third group are the teachers with low level of professional self-consciousness (their in significant number). According to all indicators mentioned above, they do not correspond to the modern standards of personality of a teacher.

Differentiation in the groups of students being a part of experimental and supervised groups. As it has been already noted, the estimation of students' development was all-round and concerned the indicators reflecting both educational achievements and personality development. With consideration for all totality of the mentioned indicators we have differentiated three groups of students according to the level of their educational-personality development (high, average and low levels of educational-personality development). In the course of experiment we conducted a special training of teachers.

At the final stage, we conducted the correspondent measures to estimate the results of the experiment. At the ascertaining and final stages of diagnostics it was used the adequate techniques (questioning, testing, purposeful supervision, the study of products of students' activity, individual and group discussions, expert evaluation, individual cards for self-evaluation of vocational self-consciousness and others).

CONCLUSION

We have considered the conceptual positions of development perspectives of rural schools in new socio-economic and socio-cultural conditions, examined the question on upgrading technologies of educational process in rural school which is to correspond to humanistic paradigm and to provide real personality-oriented education. For this, we appealed to the practical experience of the teachers of rural schools offering original technological decisions of actual didactic tasks. The choice criteria, first of all was the indicator of achieving high educational results determined by the method of technological expertise.

Application in practical work of the technological approach developed in our experiment allows to improve the quality of knowledge of rural pupils to considerable extent and to intensify the personality and individual orientation of education.

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