Psychological profile of primary school children learning according to different educational technologies

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ABSTRACT

The purpose of the present paper has become the study of motivational and intellectual spheres and personal peculiarities of primary school children learning in compliance with different educational technologies. On the basis of obtained results there has been made up a psychological profile of primary school children learning according to traditional and developmental educational technologies (L.V.Zankov). 150 school children (75 for each group) took part in the experiment. The battery of tests was used to get information. The obtained results were statistically processed.

Keywords: traditional teaching technology, developmental teaching technology (L.V. Zankov), psychological profile, primary school children.

Introduction:

It is difficult to overestimate school period in a person's life. Much of it depends on the success or failure during this period as personal features are formed under the influence or as a result of these or those peculiarities of a school period. The major aim of school teaching is to develop such psychological mechanism that will facilitate in future the process of self-actualization and self-development, that will back up cognitive need throughout school period and after it in their adult life and will not let them lose thirst for knowledge and get satisfaction from this. Primary school age is the most important phase of school childhood. The age frm 7 to 10-11 is understood as primary school age in Russian pedagogical psychology. It corresponds to the years of studying at a primary school. High sensitivity of this age period determines great potential possibilities for multisided child development. Main achievements of this age are crucial for further years of learning: by the end of primary school age a child should wish to study, be able to study and believe in his abilities.

That's why parents pay great attention to educational technologies applied at school when they choose an educational institution. In educational institutions of Russia there are employed various technologies: traditional, technology of developmental teaching (L.V. Zankov, D.B. Elkonin, V.V.Davydov), learner-centered technology and other technologies.

In Russian pedagogy the term "traditional teaching" implies classroom form of teaching based on principles of didactics formed by J.A.Komensky (Comenius) in the XVIIth century. In general the task of this technology is to develop a personality with desired properties. As for its aim content, traditional technology is pointed at acquisition (of knowledge, skills, learning skills) but not at personal development. It is stated by teachers that mass Russia school with its traditional technologies is still "a school of knowledge", there is kept the primacy of individual information awareness over their culture, the rational and logical in cognition dominate sensitive and emotive. Content of education in a mass school was worked out even at the times of former soviet school and is still technocratic. Traditional technology represents first of all authoritarian pedagogy of demands, learning is poorly connected with a school child's life with its manifold requirements and demands, there are no conditions for revealing individual abilities, individual creativity. At the same time this technology still exists in a mass school. It should be noted that schooling has a systematic character, school material presentation is logically ordered. The process of teaching has an exact sequence.

L.V.Zankov's developmental teaching technology can be called a system of early intensified manifold personal development. The didactic system was being developed in the process of long-term pedagogical experiment carried out by L.V. Zankov and his followers. In the 60-s of the previous century there was formulated the Concept of this theory with its main idea, principles and typical properties of

child's general system of development. The conceptual provisions of this technology comprises: development of learners' positive motivation for studying and gaining cognitive interests, appropriate development of different types of mental activity, embedment of emotive sphere in the process of learning etc. In contrast to traditional technology, communicative situations when every learner can reveal initiatives, independence, choose their own ways of work are created at the lesson. Group search activity, comparisons, grouping, classifications, quest for objective laws, independent conclusion making are arranged on the lesson. All these cannot but impact school children brain work development, motivation sphere, personal traits.

Some aspects of this issue have been studied by many Russian scientists. L.I.Bozhovich (1997), V.V.Davydov (1996), A.K.Markova (1990) studied peculiarities of school children learning activity. School children motivation sphere was the issue of interest of such researchers as V.G. Aseyev (1993), E.P.Ilin (2002), A.K. Markova (1990), M.V. Matyukhin (1984) and others. Research of school children individual psychological traits evolution in the context of traditional and developmental technologies was carried out by I.G. Vakhrusheva (1999) and E.G. Kuzmina (1992).

O.V. Nesterova (2004) and I.G. Vakhrusheva (1999) studied differences of intellectual and motivational spheres. E.G. Kuzmina (1992) singled out that at traditional teaching system the developmental effect is spread on specific mental spheres, i.e. changes in intellectual activity, motivational activity, reflectivity etc. are not synchronized, they are isolated from each other.

The objective of this research is to study motivational sphere, personal characteristics, and brain work peculiarities of primary school children taught by traditional technology and developmental teaching technology (L.V. Zankov). By psychological profile we consider a complete characterization of a person, a description of his features, character traits, and possible actions in certain situations.

Methods

In compliance with the aim there were employed the following methods:

1) theoretical (analysis of psychological, pedagogical and teaching literature, comparison, generalization),

2) empirical (experiments, testing).

The results were statistically processed with Student's t-criteria, one-factor variance analysis, Fisher's φ^* -criteria

Motivational sphere of primary school children was studied with the help of the following procedures: school motivation assessment questionnaire, procedures "Knowledge acquisition orientation", "Mark orientation", "The ladder of incentives", "School child's learning motives", questionnaire "How do you feel about learning different subjects?" Primary school children brain work was studied with the help of "Simple Analogies", "Cross the odd", "Study of brainwork velocity", "Definition making, reasons of similarity and differences of objects" and other methods.

To study primary school children level of self-estimation there was used Dembo-Rubinstein procedure. To diagnose the level of respondents' incentives there was applied Schwarzlander procedure. Kettel R.B. and Coin R.V. test (adapted by E.M. Alexandrovskaya) was used to examine personal characteristics of primary school children

The experiment was carried out on the basis of two schools of the city of Kazan: compulsory secondary school N 91 (75 schoolchildren), there the process of teaching is based on traditional classroom activities, and school N 75 (75 schoolchildren) where the educational process is built on the basis of L.V. Zankov's developmental teaching system.

Results

Results of the research showed that the level of generalization of school children taught according to developmental teaching system is by 7.4% higher than of school children taught according to traditional teaching system. As for intellectual process development both categories have an average level. The level of mental logics is by 11,1% higher with school children taught according to developmental teaching system than with school children taught according to traditional teaching system (p.=0,01). Brain work velocity of school children taught according to developmental teaching system is by 7,4% than of school children taught according to traditional teaching system. High brain work velocity is the result of how quickly learners could process information and take decisions based on this information, focus at the appropriate moment and reveal high mental activity, its flexibility and critical thinking.

It was also stated that learners really had some motivational differences. The general level of school motivation is higher among those taught according to L.V. Zankov's educational system. These children go to school to learn and gain new knowledge. School children taught according to developmental teaching system are characterized by motivation for knowledge acquisition more than by motivation for getting a mark (Femp. = 9.19, p=0,01). School children of traditional schools are motivated both by knowledge acquisition and getting a mark, the result of their study is more important for them

School children taught according to L.V. Zankov's developmental teaching system have broader cognitive parental motives (more than 50%). In a traditional school more than 50% of school children have as prime motives broad cognitive, learning-cognitive, social and parental ones. The difference validity verification with Fisher's φ – showed the validity of differences according to indexes of "broad cognitive motive" (φ emp. = 3.76, p = 0.01), "procedure motive" (φ emp. = 2.22, p = 0.01), "resultative motive" (φ emp. = 1.85, p = 0.01). Thus school children of the first group are motivated for acquisition of new knowledge and parents' praise, however the way of knowledge acquisition is also important for them, at the same time the character of obtained knowledge is significant for them as they want to be of some help for the society.

Then the level of cognitive interest in various subjects of school children taught according to different educational programs was studied. The general level of cognitive interest in Mathematics and foreign language is higher in the group of school children taught according to L.V. Zankov's developmental teaching system, in Russian, Reading, nature study, PE and handicraft the percentage of interested ones is higher in a traditional school. Nevertheless, it should be noted that the difference of cognitive interest general level of school children taught according to different educational programs is insignificant for the majority of subjects. One-factor dispersing analysis made it possible to single out differences (p=0,01) at the level of cognitive interest for subjects: Reading (Femp. = 46.33), Mathematics(Femp. = 46.33), environment study (Femp. = 47.74), handicraft (Femp. = 47.17). School children of traditional schools attend lessons of Reading, handicraft with pleasure, school children of the second group prefer Mathematics, lessons of environment study.

It was stated that school children learnt according to traditional technology are characterized by lower level of sociability. They are less confiding, more susceptible to offence, they experience the lack of intuition in interpersonal relationship, such features as negativism, stubbornness, egocentrism are observed in their behavior. These children are cold and formal in contacts, they are not interested in life of people surrounding them, they prefer to deal with books and things, they try to work alone, they are not apt to make compromises in conflicts. While doing something they are exact and obliging but not flexible enough. Besides, such children reveal high level of excitement, nervous tension and anxiety, at the same time they display a low level of risk taking activity and social courage. High level of self-estimation and self-control dominates (up to 15%), but nevertheless, a lower level of incentives is detected (12% below) in contrast to children learning according to L.V. Zankov's developmental teaching technology. Individuals with a low level of incentives choose too easy and simple aims, this can be explained by "social slyness" when along with high self-estimation and self-respect an individual avoids social activity and difficult responsible targets and deals.

School children learning according to developmental teaching technology excel children learning according to traditional technology in terms of: sociability, aptitude to risk, responsibility, social courage, level of incentives. These results appeared to be statistically meaningful at the level p=0,05.

Conclusions

Based on the results of the research there has been comprised a psychological profile of a primary school child taught according to two technologies. School children taught according to L.V. Zankov's developmental teaching are characterized by a high level of self-confidence and incentives. Such children are sociable, responsible, they are not afraid to risk. They have high level of generalization ability, mental logics, and brain work velocity.

These children are marked by the motivation of attending school in order to learn and gain new knowledge. The highest level of cognitive interests is observed in Mathematics, environment study, though such subjects as foreign languages, PE, handicraft are also interesting for them.

School children learning according to traditional technology are characterized by not high results in: ability to communicate, development of intellectual processes, velocity, logics and flexibility of thinking.

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At school they prefer to deal with friends and teachers. Cognitive motives are not high and learning process is not attractive for them, but at the same time they feel good at school. School children are aimed both at knowledge acquisition and getting a mark, the result of their study is more important for them as they tend to apply obtained knowledge to be useful for the society. The highest cognitive level is displayed for handicraft, though they are interested in Reading, environment study and PE.

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