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SCHOOLCHILDREN'S INTELLECTUAL CAPABILITIES BEHIND THE ORGANIZATION OF EXTRACURRICULAR WORK IN MATHEMATICS

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Abstract

The article describes the importance of considering the intellectual abilities of students in the organization of extracurricular activities in mathematics. In the process of making changes or updates to the curriculum in schools, there are often obstacles to the child's adaptation. At the root of these obstacles is the failure to consider the intellectual abilities of children of all ages when developing the program. It is also based on valuable scientific studies on the subject published in the Soviet Union from 1954 to 1974 and addressing many issues in the field of education.

Keywords: extracurricular activity, development process, intellectual capability, schoolchildren

Introduction

Improving the structure, content, and methods of academic instruction, which in turn, is involved with our ever-growing interest in problems of the child's mental and personal development. To benefit from these opportunities and to avoid haphazard and premature solution to the practical problems facing public education, several complex scientific issues need to be worked out ahead of time. Important conditions for a scientific approach to these tasks is an improvement in the level of a theoretical and experimental investigation into the mental development of school children and increased attention to an analysis of the theoretical views in Soviet education and psychology on these problems.

What is the children's capacity for learning?

The research based on Soviet Studies in the Psychology of Learning and Teaching Mathematics from the Soviet literature of the 1950-1975. The Academy of Pedagogical Sciences of USSR comprises ten research institutes in Moscow and Leningrad. And it has 31 member and 64 associate members, chosen from among distinguished Soviet scholars, scientists, and educators. In this way, important scientific research was obtained. The Academy has been published hundreds of books each year. The academy research group worked on the needs of the children during the education stage at school. First, their attention was drawn to the direct influence of the child age group on the content of the academy. So, they tried find answers to the following questions, does age level in fact drastically limit curriculum content and the ways it can be altered? Are there capabilities for intellectual development at the primary grades which remain undetected? How are these assumed capabilities related to ways of designing academic subjects? In fact, bear a direct relationship to the methodology and tactics of psycho-pedagogical research into streamlining what is being taught. The Academy studied the capabilities for learning at various ages by rejecting and

departing from the accepted and socially established curriculum. Intensifying sections of curricula, showing that children can learn new content and showing that the changed curriculum both intensifies further instruction and affects the child's intellect are practical steps from studying new learning capabilities. In this way, the research was conducted with first-grade students with mathematics course content and second graders followed the experimental Russian language courses. In the research, first graders guided by the complex dependencies existing among the objective facts of dimension measure and number. And second graders are able systematically to isolate, analyze, and describe the grammatical forms of an artificial language on their own which is concrete evidence that these children have begun to think about the complex interrelations between the form of a word and what it communicates. If this is the kind of knowledge that the child can begin to ponder then the whole subsequent course of study of his native language can be made more interesting more serious and more intellectually challenging than with traditional grammar. The study shows that the intellectual capacity of children in the primary grades is considerably more extensive and more varied than that toward which is accepted, traditional content of elementary instruction is oriented.

According to Blonskii, in teaching children, the school inevitably must consider the extent to which their thinking is developed. We may therefore confidently assume that. To some extent, curricula reflect the general course of development of the pupils' thinking. Rather than analyzing any specific curriculum, it would be more expedient to take the content that: the most authoritative curricula all have in common.And that to which there are no weighty objections from anyone. On this basis, we can assume that the' part of the curriculum on which the, teachers completely agree actually gives a true picture of the development of a child's thinking. Blonskii divided the school years into three stages: early prepuberal childhood (ages 7 to10), late prepuberal childhood (ages

10 to 12 or 13) and pubescence (ages 13 to 16). As a summation of his curriculum analysis Blonskii outlined the general course of development of the thought process as follows. Early and by striving for detail pubescence is characterized by proof-seeking including skill in mental detail. Early prepuberal childhood is the period of concrete thinking, late prepuberal childhood is the period of thinking in relationship and pubescence is the period of abstract thinking.

B.G Anan'ev, who made a special study of elementary school instruction, came to the following conclusion:

In comparison with the other sages in elementary instruction the greatest advance in the child's development occurs in the first year of instruction. After this the rate of mental growth slows down somewhat because of insufficient attention to the developmental aspect of instruction. Paradoxical phenomes appear as the sum of knowledge and skills acquired increase, the child's mental powers and capabilities, especially for generalization and practical application of this knowledge increase relatively more slowly. Progress through the material the child is taught does not bring an automatic increase in what he can be taught. This phenomenon deserves careful study, influences on child development, on the formation of the child's personality, and on his endowments have not been used in actual elementary instruction, and the inconsistencies between instruction and development have not been fully overcome.

The concept of folk pedagogy in Kazakhstan

One of the requirements in our times is to be able to use extracurricular activities based on the principle of volunteerism, kindness, interest in mathematics, changing the ability to master it in depth said Sovietvay Elubaev in his book about researching out of class works. According to our culture, we pay attention to combine the knowledge and tradition, and to preserve the moral

traditions and history. Elubaev believes that the following factors important for education and upbringing of next generation:

- education of the population and their role in life;

- ways to reveal the secrets of the environment and the actions and results of their use;

- the laws and requirements of our spiritual life also improve and continue to use them to select the ones that are relevant today;

-revealing the secrets of success in science and learning, the benefits of critical comparison with the success of others, their use in education and the development of the student's mind.

The author also warned that it is necessary to teach the child to speak correctly in the native language, think figuratively, imagine, predict, look for the best, compare, generalize, identify, disassemble, classify, analogy, deduction, induction, abstraction, refinement, modification, reversal, attentiveness, methods of thinking and remembering, behavioral skills, correction, and inference.

Researching Farabi studies

Pedagogy is a science of systematic education and training of young people. Its ideas are reflected in the works of Pythagoras, Plato, Aristotle, Euclid, and other Greek scholars. Recent historical pedagogical research shows that Eastern scholars who lived in the Middle Ages also made a significant contribution to the formation of pedagogy as a mature science. Kobesov wrote in his work that there were several teachers of this science great thinkers and scientists from Central Asia and Kazakhstan, led by Farabi. Following Kobesov, Al-Farabi describes education as following: "Learning is the acquisition of the basics of philosophy, theoretical knowledge, and education is the teacher's activity in the formation of certain moral, ethical and practical skills, which focuses on the purposeful, conscious educational work of students". This is a very important

reference that needs to be studied. He also requires individual approach to each of them, considering the specifics of the pupil, and writes: All these natural qualities require an upbringing based on the power of the will and education through things that are meant to be brought to or near the level of adulthood.

Conclusion

The development of the child's mental activity is genuinely social in nature. Collaboration and instruction are the determining conditions of it. At the same time, development is not to be equated with mastery of knowledge and skills: mental functions are restructured and take on the new character during instruction. This approach to the problem is very important both theoretically and practically. It correctly orients educational theory and practice in that stimulates the creation and application of teaching methods that are highly effective in promoting pupil's mental development. Through analyses of the writings of Piaget, Blonskii, Zankov, and Vygotskii, we can formulate basic hypothesis that change in the content of instruction coupled whit a corresponding change in the type of teaching will influence the chronological outline of the development of the child's intellect. The following are among the various basic ideas that lead to formulating this hypothesis. A central issue is whether to characterize a given age level in terms of the processes for which development is concluded at that age or in terms of the process for which development is beginning at that age level. If the former point of view is adopted, then one is led to a conception of intellectual development as being inviolable and independent of the content and methods of presentation of subject matter. This point of view leads to exercises being presented to the children that demand only previously formed intellectual processes for solution. However, is the latter point of view is adopted then the content of instruction becomes exceedingly important. Following Vygotskii, we can believe that the development of the psychological processes for learning

mathematics don't precede instruction in mathematics, but that the characteristics for learning new content are formed in the process of learning it. The emphasis, however, is not placed on the method of instruction but on the content of instruction. The teaching methods are to be directly connected with the content and are to create a bond between the child and society where the teacher represents the knowledge accumulated by society and isn't merely the child's colleague. We now know the essential conditions for the study to be effective in use, and we will continue our study by taking these into account.

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