

# Formation of the Ability to Learn as a Necessary Condition for Self-Education of Students

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**Abstract:** The implementation of the activity approach in teaching, considering the individual and personal characteristics of a student, is the main trend in the field of education in the last decade. The task of the teacher is to choose such teaching methods that would allow each student to show their individuality, activity, creativity and teach the child to learn. The authors of the article provide a detailed description of interactive teaching methods and compare two learning systems existing in Russia and China. In order to harmonize the educational space in the school and build a more comfortable lesson space for each child, the Chinese system “Shenben” is used, which is little known in Russia. In the educational process, both teachers and students are called upon to develop and develop themselves, simultaneously. The goal of the educational process is not only to gain knowledge, but also to create prerequisites for sustainable long-term self-education of the student throughout life.

## 1. Introduction

High hopes for improving the quality of education are pinned on school reforms often carried out in recent years. Decent, educated people need a modern multi-ethnic society. They will be able to be responsible for the results of their work; to make decisions independently, predicting their possible consequences; be flexible and cooperative; have a sense of responsibility for the fate of the country, its socio-economic development. The implementation of the activity approach in education, considering the individual and personal characteristics of the student is a feature of the reforms of the last decade. The fulfillment of the designated goal requires a transition from the knowledge-centric to the activity paradigm in the school system, associated with a fundamental change in the activity of the teacher and overcoming the authoritarian style of communication between the teacher and the child. World experience in the development of school education shows that the formation of a student’s ability to learn, independently acquiring relevant knowledge and using it in practice, is of great relevance [11].

## 2. Methods

Research methods: content analysis of scientific and methodological sources on the problem of organizing effective teaching of children; supervision over schoolchildren; interview; organization of discussion platforms and round tables with teachers from Moscow, the Moscow region, and China.

## 3. Research

As shown by the content analysis of the scientific and methodological literature on the problem of the formation of the ability to learn and readiness for self-education and self-development, the task of any teacher is to choose the most effective teaching methods that would allow each student to show their individuality, activity, creativity. In our opinion, these are the student-centered learning technologies that include collaborative learning, design techniques, and the use of digital technologies. The need to put a student at the center of the educational process, to make him an active subject of learning, to organize his

interaction with other students, to give the learning process a real, practical orientation are important and significant moments.

In the course of training, children constantly need to test their knowledge and skills obtained in the classroom in the conditions of a real situation, and teachers are not ready to create conditions for independent activity of students in the classroom. To overcome the above contradiction, we propose using student-centered technologies to optimize the educational process at school and the possibility of building a more comfortable lesson space for each child. The Chinese system “Shenben” is an interesting experience in organizing the educational environment of the lesson. The pupil is her central figure. This Chinese system is designed to give children the opportunity to develop and fully use their potential, showing creative activity, since the knowledge and development of the child are the main goal of the learning process, and the student himself acts as a full subject of the educational process [2].

It is possible to teach a child to learn and prepare him fully for self-education during his later life when creating a certain educational environment that contributes to the optimization of the educational process and ensuring students’ own activities considering their individual characteristics. The theory of personality-oriented learning was developed in Russia in the 90s in the works of the largest domestic didactics (E. V. Bondarevskaya, I. A. Kolesnikova, M. V. Klarin, V. V. Serikov, I. S. Yakimanskaya, etc.).

Personality-oriented technologies, as well as interactive technologies, are the main modern educational technologies that include internal mechanisms for the personal development of schoolchildren. These technologies are aimed at the intellectual and moral development of the child, since the child’s personality is at the center of the educational process. Accordingly, the individualization and differentiation of the educational process are the methodological basis of technology. In order for a teacher to work with each student in the classroom, given his psychological and pedagogical features, the educational process must be structured in a certain way [7, pp. 34-37]:

- To set an achievable goal when presenting training materials to students;
- To state the educational material in such a way that it expands the amount of knowledge and practical skills of each student;
- To organize the lesson’s study material so that each student can choose assignments;
- To use a variety of forms of individual work in the classroom;
- To carry out work using supports (handouts, cards, tables, diagrams);
- The group receives one common task, but the help to different students is different (for example, the differential use of supports depending on the individual characteristics of the students);
- The student groups receive different tasks that complement each other in the subsequent class discussion (information gap);
- To stimulate and motivate students to engage in independent activities in the classroom;
- To provide in class a versatile control and evaluation of the results of students’ mastering the knowledge and skills.

The above rules for the construction of the educational process quite successfully correlate with the “Shenben” methodology proposed by the Chinese scientist Guo Sile [2], showing that the two techniques (“Shenben” and personally oriented technology) develop in parallel, and they become for each other a valuable source of information and practical of experience.

Personality-oriented learning technologies contribute to the development of independent thinking in students. When in the classroom of the English language, a teacher dictates the words to be remembered, one student remembers well by ear, another tends to write down to remember, the third creates a visual image of the object (phenomenon) fixed by the word, the fourth tries to unite the words for any reason, the fifth tries to memorize the sound envelope of the word, etc. Therefore, giving students the right to choose the form of memorization of educational material, a teacher must offer the children tasks with a verbal, graphic or object-illustrative solution. Students have the right to choose any task and can count on success, which, naturally, enhances their learning motivation [9, p. 4]. The “Shenben” method calls for taking into account

the students' individuality, describing in detail the examples of teaching children to mathematics when the teacher builds an evidence base, strictly guided by the rules of student-centered learning [2].

The project method is the most common technology in Russian schools, providing student-centered learning. The project method is considered as a way to develop creativity, cognitive activity, independence and a means of achieving personal, metasubject and subject-related educational results. Russian teachers drew attention to the method of projects in the early twentieth century. Ideas of project training emerged in Russia almost in parallel with the developments of American teachers. In 1905, under the leadership of the Russian teacher S. T. Shatsky, a small group of employees was organized, which tried to actively use project methods in the practice of teaching. Later, already under the Soviet rule, these ideas began to be widely introduced into the school, but not sufficiently deliberately and consistently. In 1931, by a resolution of the Central Committee of the All-Union Communist Party (Bolsheviks), the project method was condemned. Since then, in Russia, no serious attempts have been made to revive this method in school practice. At the same time, in a foreign school, it actively and very successfully developed. The project method has found a wide distribution and gained great popularity due to the rational combination of theoretical knowledge and its practical application to solve specific problems of the surrounding reality in the joint activities of schoolchildren [10].

The typology of projects is diverse. According to E.S. Polat, projects can be subdivided into monoprosjects, collective, oral-speech, species, written, and Internet projects [8, p. 3].

Working on the project is a multi-level approach to the study of any subject of study, as it covers the collection of information from different sources, processing, presentation, discussion, presentation. The project method contributes to the development of active independent thinking of students and focuses them on joint research work. Project-based learning is relevant in that it teaches children to cooperate and learning to co-operation brings up such moral values as mutual assistance and the ability to empathize, builds up creative abilities and activates learners. The project method forms the communicative skills of the students, the culture of communication, the ability to formulate thoughts in a concise and accessible manner, tolerate the opinions of the communication partners, develops the ability to extract information from various sources, process it using modern computer technologies. The project form of work is one of the current technologies that allow students to apply their accumulated knowledge on the subject in practice [6].

Learning in cooperation also belongs to the technologies of personality-oriented learning and is one of the most comprehensive pedagogical generalizations of the 80s of the XX century, which gave rise to numerous innovative processes in education. A group of innovative teachers gave the name of this technology, in their generalized experience, the best traditions of the Russian school (K. D. Ushinsky, N. P. Pirogov, L. N. Tolstoy, S. T. Shatsky, V. A. Sukhomlinsky, A. S. Makarenko) and foreign teachers (Confucius, J. J. Rousseau, J. Korczak, C. Rogers) in the field of pedagogical science and practice were united [5].

Training in cooperation with the method of "Shenben", common in China and built according to the laws of Confucianism, is carried out on the basis of the following principles [2]:

- Groups of students are formed by the teacher before each lesson, taking into account their psychological compatibility. The composition of the group can be changed from lesson to lesson.;
- The group receives one task, but when it is carried out, the distribution of roles among group members is provided;
- The whole group's work is rated;
- The teacher himself chooses a student from the group who must account for the task.

This technology may become the basis for the development of an educational project in Russian schools. The main idea is to create conditions for active joint activity of students in different learning situations. Children unite in groups of 3-4 people, they receive one task, and the role of each is negotiated. Each student is responsible not only for the result of his work, but also for the result of the whole group.

Practice shows that learning together is not only easier, but more interesting and much more effective. And this applies both to academic success in the subject, and the intellectual and moral development of children. A number of skills, such as helping each other, solving a problem together, reaching the truth,

sharing the joy of success and the bitterness of failure, will be useful for children both in school and in life. The teacher receives from this system tremendous opportunities for creativity in both the subject and the students.

The idea of learning in cooperation is extremely humane in its essence. It was developed by the efforts of many teachers in many countries of the world; therefore, it is quite diverse in its variants. However, with all the diversity, the basic principles of learning in collaboration exist. After the first experience of using the teaching method in collaboration, it becomes obvious that the learners are more active. It is cooperation, not competition, that underlies learning in cooperation. It also means that each student learns by virtue of his own capabilities and therefore has a chance to be evaluated on a par with others [9, pp. 4-5].

No matter how motivated a student is and how he would like to express himself, read something (i.e. perform the task), first of all, he must know how this or that task is performed. This means that students should be taught to perform different types of tasks, learn to learn. The better the student performed the tasks, the more successfully he would master the material, faster achieving the goal. Special memos should be developed to teach the children of this activity. A memo is a verbal description of why and how to carry out any training task. Memo is presented immediately before starting work on a new task. The student (first, under the guidance of the teacher) checks each of his "steps" with the memo and gradually masters the work algorithm. Further, the teaching method in collaboration is used, that is, the children help each other to control the course of action until the memo becomes redundant.

A module is a special functional unit in which the teacher combines the content of educational material and the technology for students to master it. The teacher develops special instructions for the independent work of schoolchildren, where the goal of mastering certain educational material is clearly indicated. The teacher gives clear instructions on the use of information sources and explains how to master this information. The same instructions contain sample verification tasks. Learning to work with the module is better to start directly in the class when the student can immediately contact the teacher for help [6].

Information or digital learning technologies are also designed to individualize learning and make it easier for children with different intellectual abilities through the development of personal educational trajectories. The use of electronic textbooks is an effective means of implementing a multi-level approach and individualizing learning [1, pp. 257-258]. Students get more work and save time with electronic textbooks. Electronic manuals containing interactive games, animation, help to solve the problem of motivation: entertaining, a variety of tasks, changing activities, introducing elements of creativity. All this helps to optimize the learning process [4, p. 32].

The use of computer presentations in the educational process allows students to intensify the learning of educational material and conduct classes at a qualitatively new level, using instead of the classroom screening a show, slide films from a computer screen on a multimedia projector or on a personal computer for each student. The effectiveness of the impact of educational material on students depends largely on the degree and level of illustrative of the material. The visual richness of the educational material makes it bright, convincing and contributes to the intensification of the process of its learning. Computer presentations allow students to focus attention on the significant points of the presented information and create visual effective images in the form of illustrations, diagrams, graphic compositions, etc. The presentation affects several types of memory at once: visual, auditory, emotional, and motor, in some cases [3, p. 28].

Possessing such an opportunity as interactivity, computer presentations effectively adapt educational material to the characteristics of students. Increased interactivity leads to more intensive participation in the learning process of the learner himself, which contributes to improving the efficiency of perception and memorization of educational material. If the lesson material contains a large amount of illustrative material, the use of a computer presentation will significantly increase the effectiveness of such lesson. Using a computer presentation in class allows [3] to: increase the motivation of students; use a large amount of illustrative material; intensify the lesson; involve students in an independent learning process, which is especially important for the development of their general education skills.

Students can take part in testing, quizzes, contests, competitions, held on the Internet, chat with peers from other countries, participate in chat rooms, video conferences, etc.

The substantive basis of mass computerization relates to the fact that a modern computer is an effective means of optimizing the conditions of mental labor in any of its manifestations [1, p. 259]. In the realities of the new millennium, the use of advances in information technology is necessary. However, the use of even the most advanced multimedia products cannot replace live communication in the classroom. Although changing the personal attitude to education, the teacher is able to bring any method of teaching to a qualitatively new level [2, pp. 195-199].

#### **4. Conclusion**

Thus, personality-oriented education is a priority in the context of its reform. The 21st century is the century of a society striving for continuous learning, which demonstrates the variety of means, forms, and methods of organizing the educational process [12]. The system of education based on the “Shenben” method is designed to teach children how to learn and prepare teachers for new ways of organizing an effective educational process. Pupils are completely given to the process of acquiring knowledge and during the process of independent learning not only receive information, but also learn to learn in order to have sufficient knowledge and skills to continue their studies on their own. Thus, the goal of modern educational reforms is to create prerequisites for sustainable long-term self-development and self-education of a student throughout his life [2]. Activity and initiative are considered as requirements for achieving educational goals. Knowledge turns into wisdom, the standard teacher-student relationship transforms into a relationship of mutual creation and mutual development, materialization gives way to humanization.

#### **References**

- [1] Burlakova, I. I. (2014). *The use of Internet resources in teaching a foreign language*. In Z. P. Larskikh, T. F., Novikova & E. A. Isaev (Eds.). A collection of materials of the international scientific-practical conference “*Information technology in ensuring the federal state educational standards*”. (pp. 255-260). Yelets, Russia: Bunin Yelets State University.
- [2] Sile, G. (2018). *Training on the method of “Shenben”* (Trans. from Chinese). Moscow, Russia: “Luch” LLC.
- [3] Golubeva, S. P. (2006). Using computer presentations in English classes. *English language, 12*.
- [4] Severova, N. Yu. (2006). Electronic study guides. *English language, 4*.
- [5] Clarin, M. V. (1989). *Pedagogical technology in the educational process*. Moscow, Russia: Tanio.
- [6] Kolechenko, A. K. (2005). *Encyclopedia of educational technologies*. St. Petersburg, Russia: Karo Publishing.
- [7] Plakhova, L. M. (2000). *Personality-oriented education and the objectives of the gymnasium in the upcoming school year*. In N. Yu. Erofeeva (Ed.). *Pedsovet: Ideas, methods, forms*. Moscow, Russia: “Pedagogical Search” Center.
- [8] Polat, E. S. (2000). Method projects in foreign language lessons. *Foreign Languages at School, 2-3*, 37-45.
- [9] Polat, E. S. (2000). Training in collaboration. *Foreign Languages at School, 1, 4*.
- [10] Selevko, G. K. (1998). *Modern educational technology*. Moscow, Russia: National Education.
- [11] Fullan, M. (2010). *All systems go*. Thousand Oaks, CA: Corwin Press; Toronto, Canada: Ontario Principals Council.
- [12] The World Bank. (2003). *Lifelong learning in the global knowledge economy: challenges for developing countries*. Washington DC: World Bank Report. Retrieved from: <http://documents.worldbank.org/curated/en/528131468749957131/pdf/multi0page.pdf>.