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COMPARATIVE ANALYSIS OF MODELS OF DEVELOPMENT OF INTELLECTUAL ACTIVITY IN PRIMARY EDUCATION IN UZBEKISTAN AND DEVELOPED FOREIGN COUNTRIES

Djurakulova Munira Suyunovna
Independent Researcher

Abstract: This article presents a comparative analysis of models for developing students' intellectual activity in the primary education systems of Uzbekistan, Finland, Singapore, and South Korea. The article examines the educational philosophy, curricula, methodological approaches, and assessment systems of each country, and analyzes the educational system of Uzbekistan, which seeks to combine traditional and modern approaches.

Keywords: Primary Education, Intellectual Activity, Comparative Analysis, Finnish, Singaporean and South Korean Educational Models

Introduction

In the context of globalization and the rapid development of information technologies in the 21st century, the competitiveness of each country is determined by the quality of human capital formed through its education system. In particular, primary education is the foundation where a child acquires not only knowledge, but also the skills of thinking, analysis and creativity. The results of international research conducted in recent years show that the primary education systems of countries such as Finland, Singapore and South Korea are among the most advanced models. The Republic of Uzbekistan is also taking important steps towards a fundamental reform of the education system, its adaptation to international standards and the development of the intellectual potential of students [1]. The new edition of the Law “On Education” adopted in 2017 and the Concept for the Development of Education for 2020-2030 set the development of independent thinking, critical assessment and creative approach of students as one of the main tasks in primary education [2].

Main Part

Intellectual activity is the student's active attitude to the cognitive process, the ability to think independently, show initiative in solving problems, and be creative. In pedagogical psychology, intellectual activity is considered the highest stage of cognitive activity. In the studies of domestic psychologists E. Goziev, R. Mavlonova, and M. Davletshin, the components of intellectual activity are divided into motivational, meaningful, operational, and reflexive components. The main factors for the development of intellectual activity in younger schoolchildren include: interest in knowledge, creating problem situations, using game elements, forming independent work skills, and giving creative assignments [3].

Methodology

The Finnish education system is known worldwide for its humanistic orientation and adaptability to the individual characteristics of the student. Primary education in Finland begins at the age of 7 and lasts 6 years. The main principles of the Finnish model are:

First, the approach based on games and project activities. In Finnish primary schools, students spend a large part of their lessons in the form of games, working on projects and group discussions. This approach stimulates the intellectual activity of students, since the child acts as an active participant, not

a passive recipient of knowledge.

Secondly, the high level of professionalism and independence of the teacher. In Finland, primary school teachers have a master's degree and have wide freedom to adapt the curriculum to local conditions, design lessons and choose assessment methods.

Thirdly, the assessment system is stimulating and developmental. Finnish schools do not give numerical grades until grade 4, but instead use oral and written descriptive assessments. This strengthens students' intrinsic motivation to learn and encourages them to be active. The main tool for developing intellectual activity in the Finnish model is the "revolutionary learning" method. This method allows students to study a real-world phenomenon (for example, "Water" or "Forest") from the perspective of different disciplines (biology, physics, mathematics, language, history). Within the framework of each project, students conduct research, ask questions, put forward hypotheses, and draw conclusions.

The Singaporean education system consistently ranks high in international rankings (TIMSS, PISA). The foundation of this success is a well-developed methodological system and strategies aimed at developing intellectual activity. The philosophy of Singaporean primary education is based on the concept of "4S", which includes: Effective communication, collaborative work, creativity and innovation, and critical thinking. These four components together are the main factor in the formation of intellectual activity in students.

One of the most important achievements of the Singapore methodology is the CPA (Concrete-Pictorial-Abstract) model. This model consists of the following stages: At *the concrete* stage, students are introduced to new concepts using real objects, toys, and models. For example, in mathematics, special blocks (cubes, sticks) are used to study addition and subtraction. At *the pictorial* stage, object models are represented through pictures, drawings, and diagrams. At this stage, students learn to move from real objects to abstract images. At *the abstract* stage, students work with numbers, symbols, and formulas.

The effectiveness of the CPA model is that it provides a gradual and natural process of intellectual development of the student. Studies show that the CPA model is much more effective than traditional methods in developing mathematical thinking. Problem-based learning also plays an important role in the Singapore model. During the lessons, students are offered real-life problems (for example, "How will the family budget change if the prices of products in the supermarket increase by 10 percent?"). To solve these problems, students first think independently, then discuss them in a group and come to the most optimal solution. This approach develops students' critical and creative thinking. The assessment system also serves to develop intellectual activity. In Singapore, the PSLE (Primary School Leaving Examination) exam is held at the end of primary school, but this exam tests not the knowledge learned, but the student's ability to solve problems, analyze and draw logical conclusions.

Results

The South Korean education system is characterized by its high intensity, special attention to science and technology, and results-orientedness. The duration of primary school (chodeung hakkyo) is 6 years, starting at the age of 7. The main feature of the Korean model is the formation of internal motivation aimed at achieving competition and high results [4]. In South Korea, education is considered the highest value in society, and this value is instilled from childhood. From the first grades of primary school, students are taught science, mathematics, and English in depth. The main mechanisms for developing intellectual activity in South Korea are: *First*, a system of in-depth teaching in specialized subjects (mathematics, computer science, natural sciences). Starting from the 3rd grade of primary school, additional classes and a system of "private learning centers" for gifted students operate. This system allows students to maximize their intellectual potential [5].

Second, the widespread use of digital technologies. South Korean elementary schools are equipped with electronic whiteboards, tablets, interactive programs, and artificial intelligence-based learning systems.

By 2020, all Korean schools will have high-speed internet and digital textbooks. *Third*, an approach focused on students' independent research activities. Korean elementary schools place great emphasis on project work, research, and experimentation. Students are given weekly research assignments, where they must independently use libraries and Internet resources to analyze materials and prepare their own conclusions [6].

However, the Korean model also has its critics. Some experts believe that the excessive competition and pressure on students can have a negative impact on their health. In recent years, the Korean government has been moving towards a policy of "relieving the pressure on education" and "creative and relaxed education" [7].

The primary education system of Uzbekistan has gone through a long historical development and in recent years has entered a stage of serious reforms. The Law "On Education" and the "National Program for Personnel Training" adopted in 1997 laid the foundation for fundamental changes in the education system. The current state of primary education in Uzbekistan is characterized by the following: the duration of study is 4 years (grades 1-4), the age of students starts at 6-7 years. Basic subjects: native language and reading, mathematics, natural science, foreign language, fine arts, music education, physical education and labor education [8].

Reforms underway in Uzbekistan to develop intellectual activity: *First*, improving curricula. Starting in 2020, new generation textbooks are being introduced in primary grades. These textbooks are aimed at developing students' independent thinking, problem-solving skills, and creativity. In particular, elements of the Singapore CPA model (using subject models, solving problems based on drawings and diagrams) have been introduced in mathematics textbooks. *Second*, introducing interactive and innovative methods [9]. Modern pedagogical technologies are widely used in primary schools of Uzbekistan - methods such as "Brainstorming", "Cluster", "FSMU" (Think - Discuss - Communicate - Share), "BBB" (I Know - I Want to Know - I Got It). These methods help increase students' activity in the lesson, develop their independent thinking and defending their opinions. *Third*, improving the system of teacher training. The Institutes of Advanced Training under the Ministry of Public Education and the Republican Education Center are organizing seminars and trainings on mastering modern pedagogical technologies for primary school teachers. A number of teachers have been improving their skills according to the Singapore methodology [10]. *Fourth*, modernizing the assessment system. Since 2019, a new assessment system has been introduced in primary education, according to which numerical grades are not given in grades 1-2, and a five-point system has been retained in grades 3-4. At the same time, it is recommended to use a portfolio of achievements and descriptive assessment elements to assess students' cognitive activity [11].

However, there are problems that need to be addressed in the Uzbek model. These include: the traditional and reproductive nature of lessons is still preserved; teachers do not have sufficient methodological training; large classes make it difficult to provide an individual approach; and insufficient material and technical resources [12].

Discussion

Comparing the primary education systems of the four countries analyzed above in terms of developing intellectual activity, the following important aspects can be highlighted:

First, differences in educational philosophy. The Finnish model is based on an individual approach and the free development of the student; the Singapore model relies on a systematic and step-by-step methodological approach; the Korean model considers competition and the pursuit of success as the main factor; and the Uzbek model is at the stage of combining traditional and modern elements [13].

Secondly, curricula and methods. Advanced methods such as the CPA concept (Singapore) and "Phenomenon-Based Learning" (Finland) have been proven to be the most effective in developing

intellectual activity in primary grades. Korean STEM (Science, Technology, Engineering and Mathematics) oriented programs are also important. Uzbekistan is at the stage of mastering advanced foreign experiences in this direction [14].

Third, the assessment system. Finland's descriptive and formative assessment system strengthens students' intrinsic motivation and encourages intellectual activity. Singapore's and Korea's standardized examination systems ensure objectivity and determine students' real knowledge and skills.

Fourth, the role of the teacher. In Finland and Singapore, the status of the teacher in society is extremely high, and their professional training (master's degree) and independence serve to develop intellectual activity. In Korea, the methodological and technological training of teachers is at a high level [15].

Conclusion

Based on the comparative analysis conducted, the following recommendations can be developed for the development of intellectual activity in primary education in Uzbekistan: *First*, Phased introduction of the CPA concept. Based on the experience of Singapore, it is advisable to more widely introduce teaching methods based on concrete - descriptive - abstract stages in primary school mathematics lessons. For this, it is necessary to develop methodological manuals for teachers and improve their qualifications. *Secondly*, *develop* project -based and research-based teaching. It is necessary to develop a program of educational projects for primary school students based on the Finnish “Phenomenon-based Education” and the Korean research approach. *Thirdly*, Increasing the level of professional training of teachers. Building on the experience of Finland and Singapore, improve the training programs for primary school teachers, make education up to a master's degree mandatory for them, and continue the system of continuous professional development. *Fourth*, Modernize the assessment system. Shift the assessment to a developmental and descriptive nature rather than numerical marks, develop a student portfolio system. Fifth, strengthen the material and technical base and introduce digital technologies. Based on the Korean experience, continue to equip primary schools with interactive whiteboards, tablets, and digital curricula.

By implementing these recommendations, the Uzbek primary education system can achieve significant success in developing students' intellectual activity and strengthen its position in international rankings.

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