Actual Problems of Modern Primary Education

Sattarov Bahtiyar Katibjanovich, Ph.D.

In Pedagogy, associate professor Namangan SU, Uzbekistan

ANNOTATION

Primary education is very important in the life of every child, it is at this age that children learn basic subjects, which is the basis for further education. Thus, the quality of primary education is a prerequisite for quality education in the future. From this perspective, it is interesting to look at the content of education in primary schools in countries with different education systems and to identify current problems in primary schools.

This article discusses the features of the educational process in primary schools in Uzbekistan, Russia, Europe, USA, China, differences in the organization of the educational process; comparison of the load in the study of different subjects (mathematics, mother tongue), the general composition of the curriculum in primary school in different countries; an overview of the current problems of primary education in some countries is made.

KEYWORDS: primary school, education, curriculum, lesson, mathematics, language, problems, teacher, subject.

INTRODUCTION

Nowadays there is a world-wide reform of education in every country. This is predefined by the development of the features of digital technologies and changes in society on the whole. The table of contents of studies at initial school is extraordinarily important, in fact, not only bases of literacy and love to the studies but also moral values are mortgaged in this age. The efficiency of studies is important at any age. People with a high level of knowledge work more effectively, earn, and on the whole are more successful. The process of studies must promote the development of everybody and society, on the whole promote the development of creativity, develop the ability for critical and analytical thinking. It is for today important not only to remember information but its critical comprehension, how it's working, and understand its possibilities (Merritt et al., 2017).

Children develop basic knowledge and skills in primary school, and with the good development of thinking skills and love of learning, curiosity, is much more important than mastering the necessary volume of information offered by the school curriculum.

It is extremely important to organize educational activities in various forms, including the plan of the subjects, the duration of the classes, the organization of each school day, and the time and type of rest during and after study for successful studies. So the *main aim* of the presented research was to analyzes the features of the organization of the educational process of primary classes in countries with different education systems, it is studied how long students study mathematics and their native language, and also identifies the actual problems of primary education.

Chalkiadaki (2018) has noted: «in the context of primary education special attention should be paid to the maintenance of an equilibrium between the personal and social needs of the individuals and their result-oriented skill development mostly related to professional achievement».

According to the instructions of the World Bank, it is necessary to conduct training for 850 - 1000 hours in primary school which is effective (not just official). It is logical that enough time to study a variety of subjects determines the acquisition of quality knowledge.

The analysis of the length of time spent in a primary school in Uzbekistan is insufficient (Margery et al., 2015). In Uzbekistan, no research has been conducted on the quality of teaching time, the definition of effective teaching hours. And for example, in China, study time is distributed effectively, at the beginning of the day – physical education, the first three lessons – studying the exact sciences, then a break for lunch and a nap, and after lunch – studying the humanities.

A new ligament comprehension test was developed by research team in chief by Volodina (2021). The impact on primary school performance has been tested. The presence of a reliable relationship (i.e. influence) of the level of understanding has been established between the comprehension of connectives with reading comprehension and mathematics in primary school. This comprehension was more pronounced than school marks.

So the relevance of quality primary education is beyond doubt. In primary schools, basic subjects are taught, the main in is the native language and mathematics. Let's consider the peculiarities of primary education in countries with different education systems and current problems in primary education.

Methods

We have analyzed the recommendations for drawing up curricula for primary schools in Europe, the USA, Russia, China, Uzbekistan to determine the main problems of primary education in these countries. Also, was made a study of the analytical documents on the quality of education in these countries, made an analysis and synthesis of scientific research on the topic of primary education.

The article analyzes such criteria for primary education in the studied countries as the age of students in primary school, the duration of education in primary school, the peculiarities of the daily routine, and duration of the study of subjects (mathematics and the native language). Also has been analysis the current problems of primary education in the primary grades of the European countries, in the USA, Russia, China, and Uzbekistan.

Results and Discussion

Features of primary education in different countries.

In different countries, the approach to training is very different, as is the essence of training. For example, in Germany, education is focused on the development of the student's individuality, his personal abilities, and personal development. In China, on the contrary, teachers do everything so that students do not think that they are different in any way. That is, the focus of training is visible for the needs of the country's functioning.

The pupils' distribution according to the educational level can be used already from the elementary grades and is visible based on passing tests before entering school. Also, further education in a gymnasium or in a vocational school (in Germany for example) depends on the results of studies in the primary grades.

In different countries are different approaches to primary education. For example, in the United States children begin formal schooling aged of 5 (preparation for school) (Corsi-Bunker, 2015). In China children go to school at the age of 6+ after preschool, and in Russia – aged of 6-7 years after kindergarten.

A feature of the school system in the United States (USA) is the involvement of parents in the learning process. Schools create parent associations in each school, which solves a number of

problems and learning tasks, including the curriculum. Schools organize parents' days, conferences between teachers and parents. In the United States education aims to develop the individual abilities of each child from an early age. The elementary school in the United States begins at the age of 5. It is so-called the zero class. In it, in the duration of a year children adapt to the school system and have scheduled lessons every day. So, the next step is the study in elementary school for another 6 years. All classes except physical education and creative classes will be conducted by one teacher. Basic subjects are the mathematics and native language (reading and writing). Each year, the teacher checks and evaluates students' performance on tests developed by each state (not the federal board). The education system in the United States is in the most progressive. Schools are mostly equipped with a variety of equipment, and children have the opportunity to design, experiment, and test their abilities.

There are widely developed private schools, gymnasiums, schools with a certain focus in the USA. Training is aimed at the development of personality, identification of individual capabilities and abilities of each child.

China has some other approach. The education aims to instill in children a sense they are the same, and the development of individuality is suppressed as much as possible. This becomes a rezone to search for places to study abroad (if the parents' opportunities allow). And one more, education is extremally focused on banal exams. This has a stressful effect on children. Knowledge is evaluated on a 100-point system.

In Europe education is also focused on the development of individual abilities of students. Schools are mostly equipped with modern technology, learning conditions are comfortable. But there are no standart approach to the education. There are different approaches to learning in different European countries. However, basic subjects in primary schools are taught almost equally.

The content of the curriculum in primary schools in different countries

The document – Comparative overview of the recommended annual teaching time during full-time compulsory education in Europe. Eurydice: facts and figures – stated one of the key elements of the learning process is the amount of teaching available to students. Naturally, for successful training, a certain amount of time and training material is required. The document states that most of the time in elementary school should be devoted to writing, reading, and literature. The second-largest portion of the study time should be mathematics. Researchers have established the importance of studying mathematics for the development of a child and his level of knowledge in general. In primary schools in Europe, 17% of the minimum teaching time is allocated for the study of mathematics, from 12% in Denmark, 14% in Greece. The percentage of time is especially high in Germany, Bosnia and the Herzegovina in Croatia and Serbia (average 22%).

Consider the study time allotted for the study of subjects in countries of different education systems. In Europe recommended harmonized timetable is the next (Table 1):

Subject Years 1 and 2 Years 3, 4, 5 Native 8 hours 6 hours 45 mins language (SWALS Language 1 - L1)(2 hours 30 mins) (3 hours 45 mins) **Mathematics** 4 hours 5 hours 15 mins Language 2 (L2) 2 hours 30 mins 3 hours 45 mins Music 5 hours 3 hours

Table 1 Primary school harmonised timetable in Europe

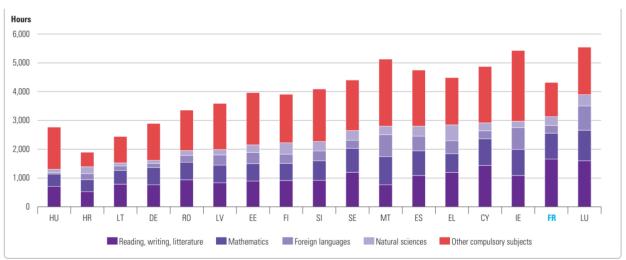
Art Physical education		
Discovery of the World	1 hour 30 mins	3 hours
European Hours	_	1 hour 30 mins
Religion / Ethics	1 hour	1 hour 30 mins
Recreation	3 hours 30 mins	2 hours 30 mins
Total	25 hours 30 mins	27 hours 15 mins
ONL – Irish/Maltese* ONL – Finnish/ Swedish*	1 hour 30 mins	1 hour 30 mins 1 hour 30 mins

^{*}Other National Language is taught during the school day

Source: <u>Office of the Secretary-General of the European Schools https://www.eursc.eu/en/European-Schools/studies/studies-organisation</u>

We can see that in the first-class children teach their native language for 8 hours (32 % of total time) and mathematics -4 hours (16.5 % of total time). In grades 3 - 5, mathematics is taught 6 hours 45 minutes (24.8%) and Native language - 5 hours 15 minutes (19.27 %).

Other lessons (Christian ethics, drawing, music, physical education, science) are also important as the European hours, where mixed nationalities meet a variety of activities. Below is a screen of the distribution of study time between subjects in Europe (Fig. 1).



Note: Countries with flexible instruction time (horizontally or vertically) and/or countries where foreign language teaching is included in another subject have been excluded from the figure, which explains the absence of European average.

Source: Farrugia et al.,2020.

In Russia the timetable in primary schools is the next (Table 2):

Table 2 Russia timetable in primary schools

Subject area		Name of the subject	1 grade	2 grade	3 grade	4 grade
D		«Russian language»,	4 – 5	5	5	5
«Russian language and	ana	«Literary reading»	4	4	4	4
literature»		"Native language" (Russian)	0,5	1	1	0,5

	Literary reading in the native language (Russian)	0,5	1	1	0,5
«Foreign language	«english»	_	2	2	2
«mathematics and computer science	«Mathematics»	4	4	4	4
«Social Science and Natural Science»	"The world"			2	2
«Art»	«Music»	1	1	1	1
«Alt»	«Art»	1	1	1	1
«Technology»	«Technology» includes the module "Practice of working on a computer	1	1	1	1
«Physical culture»	«Physical culture»	3	3	2 - 3	3
Maximum permissible class 5-day school week	21	23	23	23	

Source: curriculums of primary general education in Russia for 2020 – 2021

According to the National Curriculum for Primary Schools Adaptation for 2020 - 2021 the hours devoted for the study of subjects in primary schools of the USA are presented in the Table 3:

Table 3 Instructional Time and Curriculum Coverage in primary Schools Operating a Full Five Day Week the United States

Subject	Infant Classes 1200 Minutes per Week	Standards 1 to 6 1500 Minutes per Week
Language Arts	375	375
Mathematics	300	300
Spanish	40	40
HFLE	40	70
Science	40	70
Social Studies	40	70
PE	40	70
Expressive Arts	40	70
Gardening	20	20
Other Non-National Curriculum Activities	40	40
Roll Call etc	75	75
Learning Recovery	150	300
Total	1200	1500

Source: National Curriculum for Primary Schools Adaptation for 2020 – 2021

It was interesting to analyze the distribution of teaching hours by lessons in a primary school in the USA. The duration of the lesson can be more then 40 - 45 min. The amount of time required for its study is allocated for each subject (see the Table). For the infant classes, mathematics and native language are taught 40 min daily, other subjects for 30 min once a week. In grades 1 - 6, there are 40 min for mathematics and language arts, and 15 - 45 min for other lessons.

The schedule in China primary schools is the next (using the example of schools in Beijing):

MIDDLE EUROPEAN SCIENTIFIC BULLETIN

Table 4 Beijing primary school first grade timetable

№	Monday	Tuesday	Wednesday	Thursdays	Friday				
	Morning								
1	Mathematics	Chinese	Chinese	Chinese	Mathematics				
2	Visual arts	Mathematics	Mathematics	Physical education	Chinese				
3	Chinese	Physical education	Chinese	English	Music				
4	Aerobics	Chinese	Physical education	Chinese	Physical education				
	Afternoon								
5	Visual arts	Traditional culture	English	Mathematical thinking	Integrated practice				
6	Classroom meeting	Morality and life	Music	Morality and life	Complex practice				

So, in the first class of a primary school in Beijing, the total hours in a week are 4 - 5 h for Mathematics, 8 h for Chinese language, 4 h for Physical education.

There is also data from Zhou W. & Gao M. (1999) that mathematics is studied for 10 hours in the first and second grades, in the third -9, in 4-8 hours, in the 5-th and 6-th grades there are 7 hours for each. The Chinese language study devoted 4 hours in 1st grade, and 5 hours in subsequent classes (Table 5). Have been noted, in 1999 primary education lasted 6 years.

Table 5 Primary education weekly lesson timetable in China

Subject/activity	1	Vumber o	f w eekly p	eriods in	each grad	e
	I	II	III	IV	v	VI
Subjects:						
Ideology and moral character	1	1	1	1	1	1
Chinese language	10	10	9	8	7	7
Mathematics	4	5	5	5	5	5
Society	_	_	_	2	2	2
Nature	1	1	1	1	2	2
Physical education	2	2	3	3	3	3
Music	3	3	2	2	2 2 3 2 2	5 2 2 3 2 2
Painting	2	2	2	2	2	2
Work	_	_	1	1	1	1
Sub-total	23	24	24	25	25	25
Activities:						
Collective activities	1	1	1	1	1	1
Physical exercise; science,						
technology and cultural	4	4	4	4	4	4
activities						
Sub-total	5	5	5	5	5	5
Locally-arranged curriculum	2	2	3	3	3	3
Total weekly periods Morning/afternoon meeting (ten minutes per day)	30	31	32	33	33	33

Source: Zhou Wei & Gao Min, 1999. Each teaching period lasts 45 minutes.

In Uzbekistan the weekly lesson timetable for 2020 - 2021 year for primary school is the next (Table 6):

Table 6 The weekly lessons timetable in Uzbekistan

	Class				
Subject	1 class 2 – 4		class		
	1-2 quarter	3 – 4 quarter	1 – 4 quarter		
Native language and literature	4 alphabet	4 native language	4 native language		
Thative language and interactive	4 writing	4 reading	3 reading		
Mathematics	5				
Basic curriculum on the subject "Uzbek/Russian"	_	_	2		
Foreign language	2				
Social studies Science	1				
Geography and economy	1				
Fine arts drawing	1				
Music	1				
Physical education	1				
Technology	1				
Total hours	21	22	22		

So, the study of mathematics is allocated by 23.8% of the total time in the first grade, and 22.7% in 2 -4 grades. Studying the native language -38.1% (19.5% writing and 19.5% alphabet in the first quarter – native language in the second quarter) in the first class, and 31.8% (18.2% native language and 13.6% – reading) in the 2 – 4 classes.

We can compare the time allotted for learning the native language, mathematics and other subjects in countries with different learning systems (Table 7). Since the number of study weeks is different in almost every country, the workload is determined for one week. Also, the duration of the lessons is indicated in minutes.

Table 7 Comparison of hours for learning native language and mathematics in countries with Different learning systems

		subject				
Country	Cuadaa		mathematics	native language		
Country	Grades	h	% of the total time of the	h	% of the total time of the	
		11	lessons	11	lessons	
	1 - 2	4 h	15.7	8 h	31.4	
Europe	2 5	5 h 15	19.7	6 h 45	24.8	
	3 - 5	min		min		
USA	Infants	5*60 min	31.25	5*75 min	25	
USA	1 – 6	5*60min	20	5*75 min	25	
	1-2 4*4	1 2 4*45 min	4*45 min	13.3	10*45	33.3
		4 45 11111		min		
China	3			9*45 min	30	
	4	5*45	16.7	8*45 min	26.7	
	5 – 6			7*45 min	23,3	
Dynasia	1	1*15 min	15 : 10.04		42.9 – 47.6	
Russia	2 - 3	4*45 min	19.04	11	47.8	

	4			10	47.6
	1		23.8	8*45 min	38.1
Uzbe-	2	5*15 min			
kistan	3	5*45 min	22.7	7*45 min	31.8
	4				

We have analyzed the proportion of the hours for the mathematics studying in different countries in the world (Fig. 2).

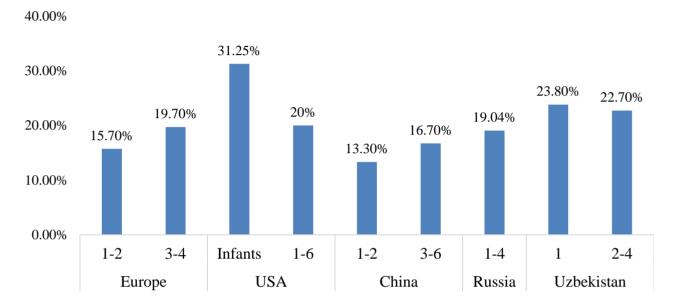


Fig. 2. The percentage of the mathematics' studying from the total time of the lessons in primary schools of the countries with different systems of teaching.

So, we can see, the USA preprimary school has the largest time for the mathematics studying. This can be explained by the small number of lessons in general for the first-year students. Soon, Uzbekistan becomes a leading.

We can see how much of the total time the native language is studied in the primary schools of the countries we have considered (Fig. 3)

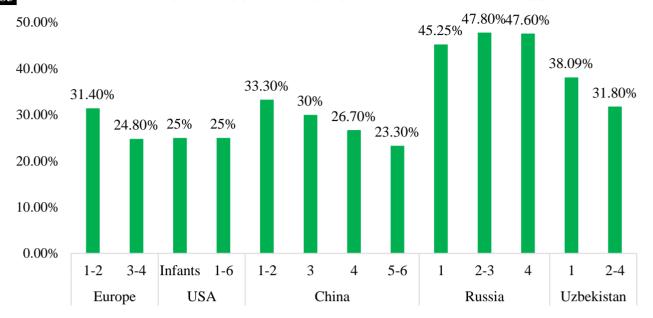


Fig. 3. The percentage of the native language studying from the total time of the lessons in primary schools of the countries with different systems of teaching.

As we can see, the time spent on learning the native tongue is the largest both in Russia and Uzbekistan. And Chinese schools are not far behind.

In primary school, mathematics and mother tongue are studied most of the time. To optimize the assimilation of the material, it is necessary to constantly improve the teaching methodology. Currently, it is necessary not only to memorize educational material, but also to teach children to use the knowledge. The emergence of innovative devices in the learning process, on the one hand, simplifies the educational process and makes it more interesting and more diverse (Folgieri, et al., 2019.)

Actual problems of primary education in different countries

According to the "The Education System in the Russian Federation Education Brief" (2012), Russia spends relatively less money on primary education than European countries. The same source tells us the level of knowledge among Russian students is much lower than among students of the leading countries. Consider the problems of primary education in the countries we are considering.

Research and surveys in the USA have such problems as:

- lack of funding
- Industrial design of deachers, insufficient qualifications of teachers, lack of interest in quality teaching and instilling in children a love of learning
- Low level of parental involvement in the educational process. In turn, parental involvement contributes to the highest level of student knowledge and discipline in general.
- ➤ The big problem is the lack of understanding of the material by the students. a large majority of our nation's students are not reading on grade level, and this can have devastating effects on their education (Boyer & Hamil, 2011).
- Frequent absenteeism of students for no good reason.
- > Striving to provide the school with computer technology for the implementation of innovative teaching methods without encouragement and training of teachers for successful work with

hardware and software (Álvarez et al., 2018).

So, in the USA with sufficient security, there are problems with unlimited children's access to information. Have to be noted, it can be unfortunately often harmful to children (Boyer & Hamil, 2011). Such problems as crimp thinking, poor memorization, appeared as a result of accustoming children to gadgets from an early age. Researchers argue that the exclusion of computing from the teaching process in primary schools, firstly, promotes the development of thinking, and secondly, it is especially important for schools that do not have proper technology resources, Internet connections or even electrical power (Brackmann, et al., 2017).

In Europe, the problems of the primary education system are in the experienced stress of the young teachers, but at the same time are more satisfied with their salaries than older teachers. For France is charactered a problem of the largest number of primary school students per teacher in Europe but the salary is the lowest.

Much research is devoted to the study of the influence of teacher qualifications on the effectiveness of student learning on their academic performance, and most confirm the fact that students' academic performance depends on teacher qualifications. But this is not always the case. Research conducted by Lauermann F. & Berger J.L. (2021), shows that responsible and organized teachers do not always have successful students. The degree of consistency of teaching practices is key to the success of its application. Naturally, it is necessary not only to be a successful teacher but also to understand their needs, to find an approach to each student. That is, the emotional intelligence of the teacher is very important in successful teaching.

In Uzbekistan, this year the curriculum has reduced the workload by 10 hours, including physical education lessons, with an emphasis on strengthening teaching methods rather than increasing the number of hours.

But the question arises whether all teachers will be able to explain to students the content of the study topics. According to "Education sector plan 2019 – 2023. Uzbekistan", there are such problems in general and primary education in Uzbekistan:

- 1. Creation of the necessary sanitary and hygienic conditions in each school;
- 2. Provision of the required number of school classes, depending on the number of students;
- 3. A small amount of study time for the full assimilation of the necessary material;
- 4. Limited access to innovations in the educational process;
- 5. Provision of computer technologies without the required instruction;
- 6. There is a difference in student performance between regions;
- 7. There is no approved system for assessing the knowledge of students at the local and national levels:
- 8. Pupils memorize knowledge but do not have the ability to think, reason, seek solutions to problems, apply knowledge in everyday life;
- 9. In elementary school, there are fewer requirements for teachers regarding their knowledge and ability to teach educational material;
- 10. Insufficient time allocated for teacher training.
- 11. Other problems (lack of funding, class overcrowding, etc.).

The main problem of primary education in China is the difference between the education quality in

rural and urban schools (Roberts & Hannum, 2018; Tsubaki, 2016). A study by Parker, et al., (2021) shows that children with lower socio and economic status are more interested in learning mathematics compare children with better financial support. This may be due to the interest in solving problems and finding ways to solve problems and not just looking at ready-made solutions and materials.

Also, experts noted the learning environment as a factor in the occurrence of anxiety among pupils in China. Parents try to educate their child abroad in more individualized educational system. There is a problem of inequality in school enrollment. And all this gives rise to inequality between children from poor and wealthy families, which can drag on from generation to generation (Guo et al., 2019; Hui et al., 2017). "Even under the very transparent and clear focus on exams, rural students could be disadvantaged by the lower teaching quality in rural areas, impacted by the shortage of well-educated teachers willing to relocate to rural areas" (Roberts P. & Hannum E. 2018).

Along with this, the Chinese government is taking steps to eliminate this problem. According to researchers at one of the learning challenges in China is equalizing learning opportunities and conditions between children from rural and urban areas. To do this, a number of government programs have been launched (Tsubaki, 2016.; Pan, et al., 2016; Education in China-A Snapshot, 2016).

Another problem of primary education in China is the lack of research to assess the quality of primary education. Studying the quality of the initial cold will help to improve it. Researchers claim that it is advisable to use qualitative and quantitative assessment methods to assess students' knowledge. Particular attention should be paid to assessing the knowledge of primary and secondary school students (Aixia, et al., 2020).

In Russia problems of primary education are similar to the problems in China and Uzbekistan. According to Nikolaev & Chugunov, (2012); Klyachko, (2021), decentralization leads to inequality in education. And rural schools have less financial support. In turn, government support for high performing schools also has negative consequences for other schools. Inequality will be reflected in both financing and staffing. Students strive for theoretical knowledge. Teachers blame student failures on themselves and not on outdated educational methods.

There is the problem of distributing the number of students per teacher and the size of the schools. There is a need for a rational distribution of resources and finances in the education system.

Another problem of primary school children is the so-called clip thinking. This is the result of insight into an unlimited amount of information without thinking. The consequence of this is the so-called Google effect – atrophy of long-term memory. The inability to memorize information occurs due to the lack of a stage of reflection on information.

Another negative phenomenon is functional illiteracy – reading and writing skills are largely lost. The child can not perceive the content of the text, highlight the main idea, retell the content, and have difficulty with forming their thoughts about what is read. Digital generation autism is a lack of development of emotional intelligence, compassion and understanding of other people (Lombina & Yurchenko, 2018).

One more problem is the inability of teachers to teach orally speaking, expressing thoughts, and using information from the mass media. It is also difficult for teachers to present material orally, to arouse interest among students. Oral learning lessons are difficult for teachers to teach (Sukma et al., 2019).

According to the Brackmann et al. (2017), there are positive results of Development of Computational Thinking Skills through Unplugged Activities in Primary School by excluding

computing devices from lessons. Researchers argue that the exclusion of computing from the teaching process in primary schools, firstly, promotes the development of thinking, and secondly, it is especially important for schools that do not have proper technology resources, Internet connections or even electrical power.

The study by Daly-Smith et al. (2021) shows that in the morning hours mathematics and reading predominate. So, children of the elementary schools naturally have a low level of physical activity at that time. Measuring physical activity throughout the day, it was found that "a large majority of primary school pupils fail to achieve 30-min of daily, in-school moderate-to-vigorous physical activity". The level of physical activity increases afternoon but still does not reach the desired level. As a result, it is recommended to conduct lessons with a combination of physical activity, to maintain not only academic knowledge but the health and psychological state of children.

Conclussions

So, having considered the aspects of primary education in countries with different learning systems, there is a noticeable difference between the age of children and the time spent in primary school, the content of educational material, the approach to students (personality development or general mass), the number of educational hours for different subjects, the percentage of basic education. The longest time part of the study of mathematics in primary schools belongs to the preprimary school in the USA, soon – in Uzbekistan. But does the level of knowledge of schoolchildren correspond to this time spent at the desk?

Most of the time is allocated to learning the native language in Russia and in the first grades in Uzbekistan. Then China comes and first classes of Europe. Soon, the percentage of time changes somewhat due to the addition of studying other subjects and the content of the programs itself.

At the same time, the problems of primary education in these countries are very similar. It is lack and incorrect distribution of funding, students' concentration on memorizing information and inability to think, insufficient competence of teachers themselves, inequality between rural and urban schools.

The governments of the considered countries are doing everything possible to eliminate these problems, but a lot of efforts are needed from each participant in the educational process (school principals, local education quality bodies, the desire of each teacher to improve themselves). It is also important that parents are interested in quality education.

To eliminate problems in primary education, it is necessary to record them in detail in each country, region, and school, and search for solutions to these problems in accordance with their impact and degree of importance in each case.

References:

- 1. Boyer A., Hamil B.W. (2011). Problems Facing American Education. FOCUS on Colleges, Universities & Schools, 6(1).
- 2. Brackmann C.P., Román-González M., Robles G., Moreno-León J., Casal, A., Barone D. (2017, November). Development of computational thinking skills through unplugged activities in primary school. In Proceedings of the 12th Workshop on Primary and Secondary Computing Education (pp. 65 72).
- 3. Chalkiadaki A. (2018). A Systematic Literature Review of 21st Century Skills and Competencies in Primary Education. International Journal of Instruction, 11(3), 1–16.
- 4. Corsi-Bunker A. (2015). Guide to the education system in the United States. University of Minnesota, nd Web, 23.

- 5. Daly-Smith A.; Hobbs M.; Morris J.L.; Defeyter M.A.; Resaland G.K.; McKenna J. Moderate-to-Vigorous Physical Activity in Primary School Children: Inactive Lessons Are Dominated by Maths and English. Int.J. Environ. Res. Public Health 2021, 18, 990. https://doi.org/10.3390/ijerph18030990
- 6. Education sector plan 2019 2023. Uzbekistan https://www.globalpartnership.org/content/education-sector-plan-2019-2023-uzbekistan
- 7. Guo, L., Huang, J., & Zhang, Y. (2019). Education development in China: Education return, quality, and equity. Sustainability, 11(13), 3750. http://dx.doi.org/10.3390/su11133750
- 8. Teaching and Learning in Primary Education | Eurydice. https://eacea.ec.europa.eu/ national-policies/eurydice/content/teaching-and-learning-primary-education-23_en
- 9. The Curricula of Primary and Junior High Schools in China. https://www.chinaeducationaltours.com/guide/article-curricula-of-primary-and-junior-high-schools-in-china.htm
- 10. Álvarez B., Walker T., Long C., Litvinov A., (2018) 10 Challenges Facing Public Education Today. https://www.nea.org/advocating-for-change/new-from-nea/10-challenges-facing-public-education-today
- 11. Hui S.K.F., Brown G.T.L. & Chan S.W.M. (2017). Assessment for learning and for accountability in classrooms: The experience of four Hong Kong primary school curriculum leaders. Asia Pacific Educ. Rev. 18, 41 51. https://doi.org/10.1007/s12564-017-9469-6
- 12. Lauermann F. & Berger J.L. (2021). Linking teacher self-efficacy and responsibility with teachers' self-reported and student-reported motivating styles and student engagement. Learning and Instruction, 101441. https://doi.org/10.1016/j.learninstruc.2020.101441
- 13. Margery McMahon, Christine Forde & Beth Dickson (2015) Reshaping teacher education through the professional continuum, Educational Review, 67:2, 158-178, DOI: 10.1080/00131911.2013.846298
- 14. Merritt J., Lee M., Rillero P. & Kinach B.M. (2017). Problem-Based Learning in K–8 Mathematics and Science Education: A Literature Review. Interdisciplinary Journal of Problem-Based Learning, 11(2). Available at: https://doi.org/10.7771/1541-5015.1674
- 15. Nikolaev D., Chugunov D. (2012). The education system in the Russian Federation: Education brief 2012. World Bank Publications. 100 p. https://openknowledge.worldbank.org/handle/10986/6012
- 16. Office of the Secretary-General of the European Schools. https://www.eursc.eu/en/ European-Schools/studies/studies-organisation
- 17. Parker P., Sanders T., Anders J., Sahdra B., Shure N., Jerrim J. & Cull N. (2021). Does school average achievement explain the effect of socioeconomic status on math and reading interest? A test of the Information Distortion Model. Learning and Instruction 73, 101432. https://doi.org/10.1016/j.learninstruc.2020.101432
- 18. Roberts P. & Hannum E. (2018). Education and Equity in Rural China: A critical introduction for the rural education field. Australian and International Journal of Rural Education, 28(2).
- 19. Tsubaki M. (2016). The Education System in China: Economic and Educational Inequalities between Urban and Rural Areas. Section 3 Research Reports, 44.
- 20. Comparative overview of the recommended annual teaching time during full-time compulsory

- education in Europe. Eurydice facts and figures http://publications.europa.eu/resource/cellar/28eea440-7b48-11e8-ac6a-01aa75ed71a1.0002.01/DOC_1
- 21. Volodina A., Heppt B. & Weinert S. (2021). Relations between the comprehension of connectives and school performance in primary school. Learning and Instruction, 74, 101430. https://doi.org/10.1016/j.learninstruc.2020.101430
- 22. Wang L., Liu Q., Du X. & Liu J. (2017). Chinese Mathematics Curriculum Reform in the 21st Century: A Review. Eurasia Journal of Mathematics, Science and Technology Education, 13(8), 5311 5326. https://doi.org/10.12973/eurasia.2017.01005a
- 23. Azitova G.Sh., Krasnova M.N. (2017). Features of the education system in China. Modern problems of science and education. No. 5; URL: http://www.science-education.ru/ru/article/view?id=26953 (date of access: 05.02.2021).
- 24. Klyachko T. (2021). Education in Russia: main problems and possible solutions. Litres. https://books.google.com.ua/books?hl=uk&lr=&id=sl0VEAAQBAJ&oi
- 25. National Curriculum for Primary Schools Adaptation for 2020-2021. (2020). Ministry of Education, Youth, Sports and Culture. Published by QADS-MOYSC. 166 p. https://www.moe.gov.bz/download/46/primary-curriculum/14618/primary-national-curriculum-adaptation-for-2020-final-electronic-publication.pdf
- 26. Zhou Wei; Gao Min (1999). Building a Chinese primary and middle school curriculum for the Twenty-first century. In: National Institute for Educational Research. An international comparative study on school curriculum, p. 125 137. Tokyo, NIER.
- 27. Order of the Minister of Public Education of the Republic of Uzbekistan on approval of the basic curriculum for general secondary schools for the 2020 2021 academic year. https://uzedu.uz/uploads/2020/03/52buyruq25022020.pdf
- 28. Farrugia A., Yann Fournier E.F., Gaudry-Lachet A., Rakocevic R. (2020) Education in Europe: Key Figures 2020. 3rd edition. The Directorate of Evaluation, Forecasting and Performance monitoring (DEPP) of the Ministry of National Education, Youth and Sports, and the Ministry of Higher Education and Research and Innovation. 92 p. https://www.education.gouv.fr/media/72354/download
- 29. Aixia W., Ying Z. & Wijaya T.T. (2020). The current situation and prospect of study quality evaluation research in China in the last 10 years. Edukatif: Jurnal Ilmu Pendidikan, 2(1), 101 112.
- 30. Roberts P. & Hannum E. (2018). Education and Equity in Rural China: A critical introduction for the rural education field. Australian and International Journal of Rural Education, 28(2).
- 31. Lombina T.N. & Yurchenko O.V. (2018). Features of teaching children with clip thinking. Society: sociology, psychology, pedagogy, (1). https://doi.org/10.24158/spp.2018.1.7
- 32. Pan Y., Vayssettes S. & Fordham E. (2016). Education in China-A Snapshot. Organization for Economic Co-Operation and Development. 2016. Paris. https://www.oecd.org/education/Education-in-China-a-snapshot.pdf
- 33. Sukma E., Mahyudin R., Rahmatina R. & Suriani A. (2019, March). Problems in Oral Language Teaching in Primary School. In Seventh international conference on languages and arts (ICLA 2018) (pp. 379 383). Atlantis Press.
- 34. Wang L., Liu Q., Du X. & Liu J. (2017). Chinese mathematics curriculum reform in the 21st century: A review. Eurasia Journal of Mathematics, Science and Technology Education, 13(8),

5311 – 5326.

- 35. Education in China-A Snapshot. Organization for Economic Co-Operation and Development. 2016. Paris. https://www.oecd.org/education/Education-in-China-a-snapshot.pdf
- 36. Folgieri R., Vanutelli M., Galbiati P. and Lucchiari C. Gamification and Coding to Engage Primary School Students in Learning Mathematics: A Case Study. DOI: 10.5220/0007800105060513 In Proceedings of the 11th International Conference on Computer Supported Education (CSEDU 2019), pages 506 513. ISBN: 978-989-758-367-4.
- 37. Kirgizov N. O. Methods of organizing and conducting tests in the native language classes of primary school //European Journal of Molecular & Clinical Medicine. − 2020. − T. 7. − №. 07. − C. 2020.
- 38. Olimjonovich N. K. Forms and methods for enhancing students' knowledge in their native language classes //Asian Journal of Multidimensional Research (AJMR). $-2020. T. 9. N_{\overline{2}}. 3. C. 99-103.$