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TRAINING OF FUTURE TEACHERS FOR THE DEVELOPMENT OF FINANCIAL LITERACY IN PRIMARY SCHOOL CHILDREN

Abstract. *The article focuses on teachers mastering the stages of forming students' financial competence, which includes the ability to plan a budget, analyze their financial needs and goals.*

Certain teaching techniques that can be used to form the basics of financial literacy in primary school children during mathematics lessons are described.

A selection of tasks with financial content is presented: arithmetic problems, a dictionary of financial terms, calculation tasks, computer tasks, etc., which teachers can use to develop primary schoolchildren's financial literacy.

Keywords: *teacher training, financial literacy, primary schoolchildren.*

The significantly complicated financial system of the country in recent years, the acceleration of the globalization process, and the emergence of a wide range of new, complex financial products and services confront people with very difficult challenges, for the resolution of which they are unprepared. Employers require highly qualified personnel in the labor market. Specialists who possess the fundamentals of financial knowledge and skills to make informed decisions regarding the use of financial products and services turn out to be more competitive in it.

The formation of financial institutions, the development of the financial services market and effective financial relations, financial education, and the increase of financial literacy in society are impossible without the formation of a developed financial culture.

The financial culture of the population is a set of traditions, norms, and ideas that reflect the level of financial literacy, skills, and behavior of people in the field of financial relations, financial planning, and the distribution of funds, given the existing level of development of market infrastructure, financial institutions, and various values of the financial sphere in society, which have material embodiment and are created by the purposeful influence of people [9, p. 125].

Financial culture is necessary condition for the formation of financial institutions, the development of the financial services market, and effective financial relations in society. This is because successful socialization requires individuals to develop certain qualities that enable them to interact with financial institutions, make decisions regarding the use and management of financial resources, and timely detect and prevent financial fraud. Therefore, the establishment of a foundation for financial culture is a new and significant direction for the domestic education system.

V. Shulyak views financial culture as part of the overall culture of a modern person and as a means by which the world of economics becomes complete and a person acquires elementary financial and economic experience. Financial culture is an integral part of the culture of financial relations, encompassing social and economic characteristics [18]. Financial culture ensures the translation of desires, based on knowledge, into meaningful and useful activity.

The financial culture of the population is a system of values and motivations that determine a person's consciousness and behavior in the financial environment.

Financial culture is not simply using, but the ability to use financial services, which implies having a very specific goal for the purchase and the necessary knowledge about the service being acquired [1, p. 19].

Financial culture can also be viewed as a set of traditions, norms, and ideas that reflect the level of financial literacy, skills, and behavior of people in the field of financial relations, financial planning, and the distribution of funds, given the existing level of development of market infrastructure, financial institutions, and various values of the financial sphere in society, which have material embodiment and are created by purposeful influence.

According to O. Kuzina, financial culture is a system of knowledge, skills, and values that helps an individual effectively manage their resources, make responsible financial decisions, and realize the importance of money in life [7]. Fostering financial culture at a primary school age is an important step towards forming an economically literate society.

Fostering financial culture at a primary school age is an important stage in educating conscious and responsible citizens. At this age, children begin to realize the value of money, the role of savings, and the necessity of planning expenses. Early acquisition of the fundamentals of financial literacy contributes to the development of a responsible attitude towards resources, the formation of skills for making informed decisions, and the development of economic thinking.

As we can see, the process of forming a financial culture includes the formation of financial literacy or financial education.

There is no single answer, even among specialists at the organisation for economic co-operation and development, to the question of what age financial literacy education should begin. The dominant position is that the early development of financial literacy contributes to the growth of children's financial independence and self-reliance, which indicates the expediency of starting financial literacy education at the initial stages of the education system.

Financial literacy is the ability to make informed decisions and take effective actions in areas related to financial management to achieve life goals and plans, both currently and for future periods.

Financial literacy consists of basic knowledge of financial terms and concepts, the ability to understand and use them, apply them in managing personal financial resources, and the capacity to make effective financial decisions. Financial knowledge helps in planning a family budget, saving funds in conditions of economic instability, and multiplying them to ensure a decent standard of living for oneself and one's family.

Financial literacy includes the ability to keep track of all income and expenses, the skill to manage monetary resources, plan for the future, choose financial instruments, and create savings. This is a complex area that involves understanding key

financial concepts and using this information to make sound decisions that contribute to people's economic security and well-being. These decisions include: making decisions about spending and saving, choosing appropriate financial instruments, budgeting, and accumulating funds for future goals, such as obtaining an education or ensuring a comfortable life in maturity [19, p. 16].

Financial literacy is singled out as a measurable criterion and indicator of financial culture. However, in addition to financial literacy (the presence of financial knowledge, skills, and abilities), the concept of financial culture should also include financial competence, which is characterized by the ability to apply knowledge in practice and, above all, to use basic skills of personal financial planning.

The formation of the foundations of financial culture is one of the modern and very serious tasks of domestic education, the solution of which should begin at the level of preschool and primary education, because it is during this period that children actively develop an interest in the objects and phenomena of the social world, and the principles of general culture are formed.

Financial competence is the ability of an individual to effectively manage their finances. This includes the skill to understand and use financial knowledge to make informed decisions regarding saving, investing, borrowing, debt management, and other financial aspects. Financial competence also encompasses the ability to budget, analyze one's financial needs and goals, and make decisions that minimize financial risks and maximize financial well-being.

The main components of financial competence include:

1. *Financial Literacy*. Understanding basic financial concepts, such as interest, inflation, credit, etc.

2. *Financial Planning*. The ability to create a budget, set financial goals, and plan one's expenses.

3. *Financial Management*. The capacity to effectively manage one's income, expenses, savings, and investments.

4. *Financial Risk Assessment*. The ability to evaluate and manage financial risks, such as investment risks or risks of insolvency.

5. *Financial Decision-Making*. The capacity to make informed financial decisions based on the analysis of information and the forecasting of possible outcomes.

The development of financial competence contributes to financial stability and the ensuring of an individual's economic well-being.

Financial competence is proposed to be measured by ten indicators:

1. *Expense Planning*. A propensity for detailed planning of everyday expenses and the desire to execute those plans.

2. *Spending in Line with Available Funds*. Having money remaining after all necessary expenses are paid; not borrowing money to acquire essential needs, or having no debt, or having debt that is not burdensome to one's budget.

3. *Expense Monitoring*. Precise knowledge of how much money has been spent and how much remains.

4. *Information Use and Discipline*. Seeking information necessary for making an important financial decision, the ability to consider the mistakes of others regarding the management of personal financial resources, and responsibility in handling money.

5. *Absence of Excessive Spending*. Striving to avoid situations where remaining money is insufficient for food or other urgent needs; the ability to avoid spending more on goods or services than possible income allows.

6. *Psychological Orientation towards Saving*. Endeavouring to save money for the future and aiming to always have a certain amount for unforeseen expenses.

7. *Concern for Unforeseen Expenses*. Worry about the inability to cover unexpected costs if necessary.

8. *Long-Term Future Orientation*. The realization that the future depends on the individual themselves.

9. *Absence of Impulsivity*. Making considered decisions rather than being influenced by emotions; measured (or well-thought-out) decisions.

10. *Goal Orientation*. The desire to improve one's position, work ethic, and the aspiration to be the best in one's field [6, p. 98].

Therefore, a financially and culturally literate person should not only possess

knowledge regarding the essence of financial terms and concepts and the skills to use them in daily practice, but also be responsible with finances, be able to form and manage a personal budget, live within their means, and be decent and honest in the sphere of financial relations between people.

Financial competence is understood as an individual's ability to obtain, understand, and evaluate essential information needed to make decisions with an awareness of the possible consequences of their actions [2, p. 78].

We will understand financial culture as the possession of financial knowledge and skills (financial literacy) by an individual, financial competence-namely, financial goal-setting and planning, responsibility for personal financial behavior (attitude towards finances, budget management, the ability to live within one's means, etc.), and the desire to obtain additional education or information in the field of finance and economics.

Financial literacy of primary schoolchildren is a basic level of knowledge, skills, and attitudes regarding the management of monetary resources that helps children develop a conscious attitude toward finances and forms responsible financial habits. It includes the understanding of concepts such as money, expenses, saving, income, and budgeting, and aims to prepare children for an independent financial life.

The main components of financial literacy for primary school children include:

1. *Understanding Money*. Explaining what money is, what it looks like, and how it is used in daily life.

2. *Saving and Spending*. Teaching children how to set money aside (saving) and how to spend it rationally, distinguishing between needs and wants.

3. *Budgeting*. Simple concepts of planning expenses and allocating limited resources.

4. *Income*. Introducing how money is earned, for example, through completing certain tasks or helping parents.

5. *Financial Decisions*. Preparing children to make responsible decisions about their finances in the future.

Teaching financial literacy at a young age creates the foundation for responsible

financial behavior in the future, developing the ability to manage one's resources and forming a healthy attitude toward money.

It is evident that effective and informed financial decisions cannot be made by people without applying at least the simplest mathematical calculations (for instance, calculating the cost per unit of a product, calculating whether money is sufficient for a purchase, etc.), and in more complex cases, constructing mathematical models (for example, calculating loan repayment terms, selecting an investment product, etc.) [11, p. 39].

Therefore, a systematic and coordinated formation of students' financial and mathematical literacy is necessary. This work should be oriented towards demonstrating the necessity of applying the mathematical apparatus being studied in real-life situations involving the handling of finances and creating examples of financially literate behavior.

Systematic work on forming the ability to apply the mathematical knowledge acquired in school to situations involving the handling of financial resources should begin during the child's transition through the initial stage of education.

This is due to a number of objective reasons.

1. Mathematical Foundation. Firstly, at primary school age, students are already studying and mastering topics such as basic arithmetic operations with natural numbers, common and decimal fractions, conversion of data from one unit of measurement to another, equations, area and volume, simple percentages, and proportions. This mathematical apparatus creates the conditions for compiling a variety of tasks with economic content.

2. Psychological Readiness and Socialization. Secondly, the process of a child's learning in primary school, from the perspective of developmental psychology, is characterized by a change in the child's leading activity, and communication skills are formed in the role of a student. Communication serves as a distinctive form of reproduction among peers of the relationships that exist among adults. In the process of communication, there is a deepened orientation towards the norms of these relationships and their assimilation. This creates the conditions for forming students'

readiness to master models of financially literate behavior through joint activities with older children or adults, as well as practicing skills within a peer group. We believe that the mastering and «appropriation» of models of financially literate behavior is only possible when the child resolves problematic situations that are personally significant to them and are related to handling personal financial funds [12, p. 98].

Thus, in primary school, the full-fledged formation of a child's financial literacy becomes possible, encompassing the necessary knowledge and skills in both economics and mathematics, as well as an understanding of responsibility for decisions made and their financial consequences.

Systematicity and consistency in the education of primary schoolchildren ensure the firmness of their acquisition of knowledge, skills, and abilities. This is facilitated by the use of a variety of methods in the process of teaching mathematics (visual, practical, and verbal). Each group of methods is built upon one of the leading forms of thinking (concrete-operative, visual-imaginative, verbal-logical), which creates conditions for the firm acquisition of the content of the students' educational activity. In the process of educational activity, a wide variety of methods are used – the narrative of an adult (teacher), conversations/discussions, demonstration of experiments, showing videos and cartoons, educational games, various exercises, and so on. The necessity of using diverse methods is dictated by various reasons: the variety of educational content, the level of development of students' cognitive activity, and the structure of the process at different stages of its implementation.

One of the leading principles in teaching mathematics to primary schoolchildren is the principle of the organic combination of education and upbringing, the acquisition of knowledge and the development of students' cognitive abilities. The school should become the most important factor in the humanization of socio-economic relations, and the formation of new life attitudes of the individual.

In connection with the changes that have occurred in all economic relations of our society, the primary course in mathematics requires serious updating, both in terms of its content and the knowledge that will serve as a basis for the further education and upbringing of students. The acquisition of economic knowledge contributes to

broadening horizons, solving problems of children's socio-moral development, and helps to understand the connections between the curriculum material and life [14, p. 110].

Although the process of mastering economic knowledge at a young age is still in the stage of searching, establishing rational forms and methods, it is perfectly clear that primary school children are capable of grasping many economic laws.

Teaching children basic economic concepts, rules, and patterns allows for addressing at least two fundamental problems of school education.

Firstly, a gap is filled and eliminated in the sense that primary school becomes a platform for the formation of financial knowledge.

Secondly, primary school, with the help of economic knowledge, prepares the young individual for life even at an early age.

Thirdly, a constituent element of economic upbringing is the formation, at an early age, of a respectful attitude towards others and the results of their labor activity [3, p. 12].

Schoolchildren must be aware that the spiritual and material values that surround them have been created by the enormous labor of many millions of people; this demands respect and a careful attitude toward what has been created.

Economic knowledge acquired in primary school allows them to better understand the specifics of labor in industry, agriculture, commerce, and so on.

Certain teaching techniques are used to form the fundamentals of financial literacy in primary school students during mathematics lessons:

1. Using topics relevant to students (for example, the history of money for primary schoolchildren);
2. Using infographics (diagrams, tables, cartoons), for example, the collection of cartoons «Alphabet of Financial Literacy with Smeshariki» or the cartoon «Lessons of Aunt Owl,» the cycle «Alphabet of Money»;
3. Involving knowledge from other fields (for example, the surrounding world/environmental studies);

4. Dramatization, the use of artistic images. One can stage an old fairy tale in a new way;

5. Including a spirit of competition in educational activity (for example, who will earn more, who will save more);

6. Analyzing and studying media materials [5, p. 79].

The synthesis of studying economics and mathematics is determined by the very logic of the learning process. In this context, economic issues are perceived by students, first and foremost, as mathematical problems, which creates a stimulus for increasing interest in the study of both economics and mathematics. On the other hand, this synthesis instills the initial skills of economically literate behavior in real-life situations and, above all, the skills of rational money management.

A huge role in acquiring economic knowledge belongs to arithmetic problems that deal with yield, production, working conditions and wages, the cost of goods, the saving of material (fuel, raw materials), and so on.

Here are examples of some of these problems:

Problem 1. From 1 kg of waste paper, 25 school notebooks can be produced. How many notebooks can be produced from 1 centner (or: 1 quintal) of waste paper? From 1 ton of waste paper?

Problem 2. Through careful cutting, 12 cm of fabric was saved on each coat and 13 cm of fabric was saved on each suit. How much fabric will be saved when cutting 96 coats and 96 suits? How many children's coats can be sewn from the saved fabric, if one coat requires 2 m of fabric?

Despite the clear economic content of such problems, the economic aspect of the situations described in the problems most often remains undiscussed. Additional work is required after solving the problem to strengthen this aspect. During this work, it may be possible, for example, to hold a conversation about thrift and saving. When solving the first problem, a discussion about the benefits of collecting waste paper and scrap metal, and about a cautious attitude towards the forest might be appropriate. Students can also be encouraged to create and solve additional problems with a similar plot.

Analysis of the content of primary school mathematics textbooks and the problems included in them suggests that most of them can be considered problems with economic content; these may also include problems like, «The kindergarten bought 6 boxes of oranges, 10 kg in each. How many kilograms of oranges were delivered to the kindergarten?»

The economic essence of such problems most often remains overlooked; the work with them is limited to the conscious selection of arithmetic processes and the accuracy of the calculations performed [13, p. 302].

During lesson preparation, the teacher needs to «see» these problems and pay attention to their context so that brief, targeted conversations of an economic nature can be held during the lesson.

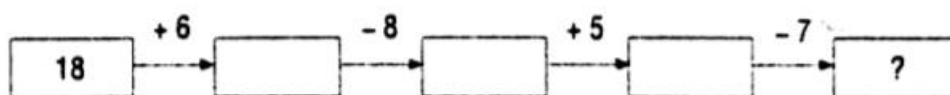
That is, children can be effectively taught the basics of economics and financial literacy only through practical workshops, games, and problem-solving. Mathematics can be a tremendous aid in this endeavor. The relevance of economic topics is obvious in modern conditions. Children literally encounter terminology such as credit, barter, rent, business, and so on at every turn. The substantive side of economic concepts can be revealed to primary school students through mathematical problems. Furthermore, instructional problems featuring economic information are one of the possible ways to diversify the labor-intensive and rather dull work of improving calculation skills.

Work on the glossary of the specified economic terms can be carried out during the process of solving the following problems:

1. What is the name for money that an entrepreneur borrows from a bank?

a) debt (12); b) credit (14).

You will find out the answer when you perform the actions in the specified order.



Credit is the provision of money for a certain period of time for a specific fee. Credit is most often taken out at a bank.

2. All people and enterprises that receive income must pay a part of the funds to the state. What are these payments called?

a) tax; b) contribution.

$$11 = 8 + \square$$

$$15 = \square + 7$$

$$12 = 6 + \square$$

$$17 = \square + 8$$

$$13 = 6 + \square$$

By placing the necessary numbers in the «windows», children find the letters corresponding to those numbers and read the answer.

The formation of the fundamentals of financial literacy is facilitated by conducting discussions that utilize historical information and address questions such as, «Why, how, and when did money appear, and what forms did it take?»

When working on the problems of economic upbringing, it is necessary to consider the age characteristics of primary school children and their level of academic preparedness. The real economy is forced to operate with large numbers that far exceed the calculation capabilities and even the simple perception of younger children. Under conditions of rising prices and instability of the national currency, monetary indicators – not only at the level of the state and enterprises but also those operated by an individual or family – have started to be measured in multi-digit numbers, which are inaccessible to the understanding of most children [8, p. 240].

It should be noted that the content of individual mathematical problems contributes to the clarification of such complex concepts as «equipment depreciation,» «exchange equivalence,» «profitability,» and others. Here is an example of such a problem.

Problem 1. A kitchen stove costing 6,000 UAH will last for 10 years. How much money must be saved monthly so that a new stove can be bought at the same price after the old one wears out?

Solution: Over the course of a year, the stove depreciates by an amount equal to its cost divided by 10 years. Dividing 6,000 by 10, we get $6000 : 10 = 600$ UAH. Since a year consists of 12 months, the stove depreciates by $600 : 12 = 50$ UAH during one month. It follows that if one sets aside 50 UAH monthly, the amount equal to the initial

cost of the stove can be accumulated over 10 years.

Problem 1 is intended to help students understand the meaning of equipment depreciation, which is the financial compensation for its wear and tear.

Problem 2. A cow gives 16 liters of milk per day, and a goat gives 3 liters. Who is more profitable for a farmer to keep: 1 cow or 5 goats, if they aim to get the most milk? And what is the minimum number of goats that gives more milk than one cow?

Solution: A cow gives 16 liters of milk daily, and 5 goats give $3 \cdot 5 = 15$ liters of milk. Therefore, if the farmer aims to get more milk, it is better to keep 1 cow than 5 goats. However, 6 goats will give $3 \cdot 6 = 18$ liters of milk, which is more than one cow.

Problem 3. If Masha travels to school by bus, she spends 10 minutes less time than when she walks. A bus ride costs 5 UAH. How much does one minute of saved time cost Masha? And what does she lose when traveling by bus if she commutes to school by bus throughout the week?

The problem is intended to help the student understand that time has a monetary value, thus grasping the formula «time is money.»

The second question also has a logical and semantic character. By preferring the bus over walking, Masha loses the opportunity to stroll in the fresh air, strengthen her health, avoid being pushed on the bus, and eliminate the risk of being late due to a bus not arriving.

When the work involves not only the glossary of economic terms but also problems that reveal the interrelationship between the studied concepts, the nature of the tasks changes.

For example, in the third grade, a problem about salary calculation can be considered. «Today in class, we will be accountants at a large enterprise. Let's calculate the salary of P.A. Mykolenko for September, if his base is 9,000 UAH, and P.A. Mykolenko worked 20 days in September. Do you know what a base salary is?»

The formation of financial thinking in primary school children is facilitated by problems where students learn elementary calculations and evaluate the benefit of a purchase, as well as problems where students become convinced of the necessity of saving funds in the family budget, the school budget, and so on. Here are a few

examples:

Problem 1. The entrance door of an apartment building became unusable due to children's mischief. The parents of these children had to buy a new door, for which they paid 8,000 UAH, and for its installation – another 1,000 UAH. How much money did the parents pay in total, and what amount did each family contribute if 9 families participated in installing the new door?

Problem 2. 70 trees were planted in the school alley, but soon 10 trees were broken. How many trees were left in the alley? Calculate the financial loss incurred by the school if 180 UAH was paid for the purchase of each tree, and 40 UAH for its planting?

Considering the age characteristics of primary schoolchildren, problems with economic content can be presented in an interesting or humorous form. It is well-known that humor and jokes are often effective educational techniques. They enliven the lesson, bring a note of joy to it, and allow us to speak about serious matters with a smile.

Children's reaction to jocular problems is usually very bright and spontaneous. For example:

Problem 1. The students of one school make sure that water doesn't run from the taps unnecessarily, which is why half of the students at this school come to class with unwashed hands. The other half come not only with unwashed hands but also with unwashed faces. How many students are there in total at this school, if 290 boys and 46 girls come to class daily with unwashed faces?

Before solving this problem, a discussion can be held:

- What is this problem about? (About a cautious attitude towards water, tidiness).
- What qualities of some students are ridiculed in the problem? (Sloppiness, untidiness).
- Why and how should we save water?
- Which people are more pleasant to deal with: those who are neat and well-kept or those who are slovenly/grubby?

- How do you take care of yourselves?
- Should water be saved in this way?

The content of the two joke-problems presented below provides additional opportunities for conducting educational discussions.

Problem 2. Vovochka bought one piece of chewing gum for 70 kopecks and sold it during the geography lesson to his desk mate, Natasha, for 1 UAH. Natasha sold that chewing gum to her best friend, Liusya, for 1 UAH 50 kopecks. Liusya divided the purchased gum in half, chewed one half, and sold the other half to Mashenka for 2 UAH. Mashenka chewed the gum for a while, then wrapped it in its wrapper and sold it back to Vovochka for 3 UAH. A happy Vovochka chewed the gum until the end of the lesson. What profit did each of the girls who took part in the trading operation receive, and how much did Vovochka spend on his chewing gum?

Problem 3. Sasha Chernov sat down to do his homework and stayed at his desk for 2 hours. He spent 20 minutes thinking about ice cream. He spent 10 minutes looking for an eraser in his desk drawer to rub out an indecent picture from his geography textbook, a picture he had spent 40 minutes drawing beforehand. Sasha dedicated the remaining time to his homework. Did he manage to complete his homework and in how many minutes?

Thus, the presence of problems with economic content during mathematics lessons in primary school contributes to the acquisition of initial financial literacy and has a practical orientation. The life experience of primary schoolchildren is sufficient for the perception of elementary economic concepts and laws.

A specific feature of financial upbringing is that it cannot be isolated into some special educational process. This process is long and continuous, and the results are delayed in time; however, the inclusion of instructional problems and word problems with economic content into the educational process allows students to master certain key financial concepts and form the foundations of economic thinking already at the initial stage of mathematics instruction [10, p. 117].

It is worth noting that the leading methods for forming financial literacy in primary schoolchildren are: the problem-based, heuristic, and research methods.

The heuristic teaching method, unlike the problem-based method, is oriented toward finding a solution to an unknown problem-unknown to both the student and the teacher at that moment. Its goal is not the transmission of past generations' experience, but the creation of the student's own experience by taking historical and cultural analogues into account.

To implement the heuristic method within the framework of teaching financial literacy to primary schoolchildren, tasks for forming one's own experience in real-life conditions can be proposed. For example:

1. The «Cake for Mom» Task. This task is aimed at forming practical skills in calculating the necessary quantity of ingredients, purchasing the products, and baking the cake together with parents. Students are offered a list of products from which they need to select the ingredients for their cake: oil, sugar, citric acid, condensed milk, walnuts, mustard, butter, ketchup, cinnamon, pepper, rice, chocolate, eggs, salt, flour, soda, powdered sugar. The next stage of solving this heuristic problem is the purchase of the products necessary for baking the cake.

Students usually find the independent trip to the store and communication with its employees most challenging (this can be explained by the children's age characteristics – shyness, insecurity, and fear of being misunderstood). Due to the fact that the task is performed with minor parental intervention, the problems associated with purchasing goods are usually successfully overcome.

The final stage of the task's implementation is the baking of the cake itself (the independent selection of the cake recipe can also be an element of the heuristic approach to the task). This stage is controlled by parents only within the framework of the students' life safety (preheating the oven, turning on and operating the mixer, etc.). The result of completing the task should be reports from the parents about the work performed. The biggest challenge is usually minimizing parental intervention in all stages of the task execution. For the most part, students manage on their own, demonstrating a high level of independence during the implementation of the tasks [16, p. 45].

2. The «Brother's Birthday Celebration» task can serve as the next example of a

heuristic problem. It is aimed at independent preparation and description of the possible realization of a real-life situation. To solve the problem, students are provided with the following list of items: disposable plates, video camera, napkins, tea bags, salt, cake, candles, oil, juice, sparklers, game console, mayonnaise, coffee, cups, forks, notebook, bread, cutlets. Each item has a price per unit (pack, kg). The constraints for completing the task are the amount allocated by parents for the birthday celebration – 1000 Hryvnias (UAH) – and the number of guests invited – 5 friends.

Task Stages and Challenges. In the first stage of solving the problem, it is necessary to compile a list of essential items for the birthday celebration from the available list. The biggest challenge for students is often accounting for the budget constraint of 1000 UAH and the desire to include items that are not mandatory for setting the table (for example, the game console, sparklers, video camera).

Difficulty is sometimes also caused by accounting for the number of guests (the purchase and calculation needed to be made considering the number of guests): the participants' inattentiveness leads them to forget to include the birthday boy as one of the attendees, as well as the necessary tableware (cups, plates), drinks (juice), and so on.

Difficulties also arise with the formulation of the evidence base – justifying the need for the selected items in relation to the birthday celebration.

Similar tasks within the scope of the heuristic approach can also be created regarding other thematic blocks, such as: «Saving and Accumulation,» «Family Budget,» and others.

Thus, within the framework of teaching financial literacy to primary schoolchildren, the heuristic method is the most promising and effective, as it shapes the students' own vision of the situation and practical life skills.

Research Program and Content. As part of the research, we used the program «Kotygoroshko in the World of Finance» for forming the foundations of financial culture in primary school children.

The content of the program for forming the foundations of financial culture in primary school children includes a system of initial financial and economic concepts

from various economic spheres, such as: production-technological, commodity-monetary, state-legal, moral-ethical, and informational. Special emphasis in the work's content can be placed on the local history aspect and the use of regionally focused material.

In the program, the content section includes a description of activities across three interconnected modules: «The History of Money for Children,» «Money and Society,» and «My Finances.»

The goal of the first module, «The History of Money for Children,» is the formation of elementary concepts in primary schoolchildren regarding the financial system, the history of the development of money and banknotes, methods of money storage, banks, bank cards, and money storage services; the development of children's ability to distinguish and compare monetary (paper and metal) signs of different denominations; and the upbringing of a careful attitude toward personal and family money, and the labor of adults [17, p. 217].

The second module, «Money and Society,» is aimed at forming elementary concepts in primary schoolchildren regarding commodity-monetary relations in society, money as a means of carrying out the process of buying and selling goods and services, and the development of children's value-based attitude towards money as an equivalent of human labor.

The «My Finances» module involves the formation of initial financial concepts about the reasonable use of money in various life situations.

In the development of the program for classroom and extracurricular activities, the content lines were defined (money and operations with it, planning and managing finances, risks and rewards, financial environment, goal setting and planning, responsibility for personal financial behavior, the desire to obtain additional education or information), taking into account such contexts as education and work, home and family, personal expenses, leisure, rest, society and citizen, key concepts and terms, and aspects of cognitive activity.

The program takes into account issues of continuity, is based on the interaction of all participants in educational relations, involves the integration of the educational

process into the social environment, and provides for the organization of network interaction of the educational institution not only with institutions of supplementary education but also with financial institutions, industrial organizations, universities, and so on.

The integration of financial literacy into mathematics lessons is an important means of preparing primary schoolchildren for real life. Thanks to mathematical problems and practical tasks, students learn to operate with financial concepts, develop logic, substantiate decisions, and make them based on analysis.

Considering the methodological directions for integrating financial terms and concepts into mathematical problems, T. Smovzhenko suggests using mathematical examples related to finance [15]:

- Addition and Subtraction – calculating change when purchasing goods.
- Multiplication and Division – problems calculating the cost of several goods or dividing funds among several people.
- Ratio/Proportion Problems – discounts, promotions (sales), tax calculation.

Mathematical Games

- Organizing a «store» or «bank» in the classroom where students can use play money for transactions.

Budgeting

- Planning expenses for school supplies or classroom purchases.

Saving Problems

- Teaching children to determine how much money they need to save to achieve a certain goal.

Examples

- Change Problem: Masha bought a notebook for 12 Hryvnias and a pen for 8 Hryvnias. She gave the cashier 50 Hryvnias. How much money was returned to her?
- Budget Problem: A family plans a trip to the zoo. A ticket for an adult costs 100 Hryvnias, and for a child – 50 Hryvnias. How much money is needed for a family of two adults and one child?

– Saving Problem: A student wants to buy a toy for 200 Hryvnias. If he receives 20 Hryvnias in pocket money every week and saves half, how many weeks will it take him to buy the toy?

Using Real-Life Examples and Technology. The use of real-life examples is one of the methodological approaches to forming financial culture. It is important to offer students tasks based on daily financial situations: planning a family budget, calculating travel expenses, or celebration costs. Price tags, bills, and receipts can be used as materials for lessons.

In the modern information society, the potential of information and communication technologies cannot be ignored. Interactive resources and mobile applications can be used to teach financial literacy. For example, online games or simulators where students learn to manage a budget, or presentations and videos to explain financial concepts in an accessible way.

Thus, various teaching methods and techniques are used to teach primary schoolchildren the basics of financial literacy. To ensure the robustness of knowledge acquisition by primary school children, it is necessary to capture their interest and attention towards the subject being studied. After all, for a primary school children, it is crucial to see, touch, and feel what the teacher is talking about. Various visual, practical, and interactive teaching methods and techniques help us achieve this with younger students.

References:

1. Bond R. Finansova hramotnist ta obiznanist v Ukraini: fakty ta vysnovky. USAID «Rozvytok finansovoho sektoru» (FINREP). Kyiv, hruden 2010. 42 s.
2. Vaintraub M.A., Strelchenko O.S., Strelchenko I.H. Finansova matematika: Navchalnyi posibnyk. Kyiv : TOV «Art-prohramy», 2002. 120 s.
3. Helbak A.M. Formuvannia pidpriemlyvosti uchnia yak kliuchovoi kompetentnosti dlia zhyttia. Kropyvnytskyi : KZ «KOIPPO imeni Vasylia Sukhomlynskoho», 2017. 24 s.

4. Imber V.I., Liubchak L.V. Formuvannia osnov finansovoi hramotnosti molodshykh shkolariv na urokakh matematyky. Innovatsii v doshkilnii i pochatkovii osviti, 2025, 3, 33-42.
5. Kovalchuk H. O. Orhanizatsiia navchannia z ekonomiky. Kyiv : Nats. ped. un-t im. M. Drahomanova, 2002. 305 s.
6. Komarova O. O. Finansova hramotnist yak chynnyk rozvytku rynku osvitnikh posluh: metodyka vykladannia spetskursu. Sotsialni tekhnolohii: aktualni problemy teorii ta praktyky : zbirnyk naukovykh prats / Klasychnyi pryvatnyi universytet. Zaporizhzhia, 2020. Vyp. 87. Pp. 98-107.
7. Kuzyna O. Finansova hramotnist ta finansova kompetentnist: vyznachennia, metodyky vymiru ta rezultaty analizu. Pytannia ekonomiky. 2015. № 8. Pp. 129–148.
8. Kuryk M. Formuvannia piznavalnoi aktyvnosti shkolariv cherez siuzhetno-rolovi ta dydaktychni ihry. Hirskha shkola Ukrainskykh Karpat. 2016. №14. Pp. 240-242.
9. Kucheroва H.Yu. Shliakhy rozvytku finansovoi kultury naselennia. Visnyk Skhidnoievropeiskoho universytetu ekonomiky i menedzhmentu. Ekonomika i menedzhment. 2013. Vyp. 2. Pp. 125–131.
10. Lomachynska I.A Finansova hramotnist yak osnova optimizatsii finansovoi povedinky v umovakh hlobalizatsii. Visnyk ONU im .I.I.Mechnikova. 2011. Tom 16. Vyp. 20. Pp. 116-124.
11. Rebukha L. Z., Kizyma T. O., Pysmennyi V. V. Znachymist interaktyvnykh ta praktyko-zoriietovanykh ihor u protsesi vykladannia finansovoi hramotnosti v zakladakh osvity. Ukrainian Journal of Education Studies and Information Technology. 2020. Vol. 8. № 4. P. 38-51.
12. Smovzhenko T. S. Finansova hramotnist: navchalnyi posibnyk. Kyiv : FINREP, 2013. 311 s.
13. Sorkin I. V. Metodolohichni zasady rozroblennia stratehichnykh dokumentiv shchodo finansovoi hramotnosti. Finansovo-kredytna diialnist: problemy teorii ta praktyky. 2013. Vyp. 2. S. 301-309.

14. Fesenko H.A. Pidhotovka maibutnikh uchyteliv matematyky do pidvyshchennia finansovoi hramotnosti uchniv profilnoi shkoly: dys. ... kand. ped. nauk.: 13.00.04. Khersonskyi derzhavnyi universytet. Natsionalnyi pedahohichnyi universytet imeni M.P. Drahomanova. Kyiv, 2018. 316 s.

15. Finansova povedinka : navchalno – metodychnyi posibnyk dlia vchytelia /za zah. red. d-ra ekon. nauk prof. T.S. Smovzhenko. Kyiv : DVNZ «Universytet bankivskoi spravy», 2016. 350 s.

16. Chernetska T.I. Suchasnyi urok: teoriia i praktyka modeliuvannia. Kyiv : TOV «Praimdruk», 2011. 352 s.

17. Chernobai O.B. Pro deiaki typy poshukovykh zadach. Matematychna osvita: mynule, sohodennia, maibutnie, do 100-richchia vid dnia narodzhennia O.F.Semenovycha: monohrafiia. Kharkiv : SH NTM «Novyi kurs», 2020. 375 s.

18. Shuliak V.O. Osoblyvosti pidhotovky vchyteliv pochatkovykh klasiv do formuvannia osnov finansovoi hramotnosti molodshykh shkoliariv. Aktualni problemy formuvannia tvorchoi osobystosti pedahoha v konteksti nastupnosti doshkilnoi ta pochatkovoi osvity : materialy Mizhnarodnoi naukovo-praktychnoi internet–konferentsii, m. Vinnytsia, 2019. Pp. 402-406.

19. Yurii S.I., Kizyma T.O. Finansova hramotnist naselennia v dialektytsi suchasnykh osvitnikh tendentsii. Finansy Ukrainy. 2012. № 2. Pp. 16-25.

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МОДЕЛЬ ФОРМУВАННЯ КУЛЬТУРИ ЗДОРОВ'Я УЧНІВ: АЛГОРИТМ ДЛЯ МАЙБУТНІХ ПЕДАГОГІВ