

EEIA 2019
**International Conference "Education Environment for the
Information Age"**

**PRIMARY STUDENTS' COGNITIVE AND SOCIAL EXPERIENCE
IN FINANCIAL LITERACY TASKS CREATING**

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Abstract

The article is devoted to one of the urgent problems of modern education - the formation of financial literacy of students in Russian schools, which is considered today as part of a broader problem - the problem of the functional literacy formation. The article analyzes the features of the development of financial literacy tasks for elementary schoolchildren. The authors pay attention to the cognitive abilities of students of this age group, their practical experience in solving issues related to finances. They reveal an algorithm for selecting content with which it is advisable to face students of this age group. Acquaintance with the content of questions in the financial literacy field was reflected in educational tasks. An important aspect of the authors' attention was the definition of the structure and form of these tasks, the nature of the questions asked by the younger students and the modeling of the answers they expected. A practice-oriented approach to determining the content of necessary financial knowledge of schoolchildren and their abilities to acquire and apply this knowledge in specific life situations related to the financial sphere is the basis of the proposed teaching materials. The article presents approaches to the selection of subjects for assignments and specific examples. Primary school students' awareness of the feasibility of a number of behaviors should be the main result of the inclusion of financial literacy tasks in the practice of primary school teachers. It has precisely the pedagogical potential of the tasks developed in high school course.

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Keywords: Financial literacy, cognitive activity, primary schoolchildren.



1. Introduction

A serious attitude of the Government to the development of financial literacy of Russian citizens, including students, is explained by a number of circumstances, including the expansion of financial services, the complexity increasing of the financial sector, and the need to ensure financial security and economic well-being of Russian citizens (On Approval of the Strategy for Improving Financial Literacy in the Russian Federation for 2017–2023, 2017).

Nowadays knowledge and understanding, skills and behavior, personal characteristics and attitudes, reflecting the financial literacy of schoolchildren, cause interest of legislators (Jumpstart Coalition for Personal Financial Literacy, 2015; OECD/INFE, 2012; On Approval of the Strategy for Improving Financial Literacy in the Russian Federation for 2017–2023, 2017; Ministry of Finance of the Russian Federation, the IMF (the World bank), 2013) and teachers-researchers (OECD, 2019; Mundy, 2010; Johnson & Sherraden, 2007; Korolkova, 2017; Vitt, Reichback, Kent, & Siegenthaler, 2005; Rutkovskaya, 2017; Rychenkova & Spasoevich, 2018).

The formation of financial literacy of Russian schoolchildren is considered today within the framework of a broader problem - the problem of the functional literacy formation. At present in the world teaching practice financial literacy is considered as one of the components of human functional literacy (Kovaleva, 2017; Kovalyova, Rutkovskaya, & Polovnikova, 2017; Rutkovskaya & Polovnikova, 2017).

2. Problem Statement

Despite the fact that currently the concept of “financial literacy” is interpreted differently each of its interpretations includes two components: knowledge and skills.

Knowledge in some interpretations seems to be quite academic and is a separate statement of economic theory. In other interpretations, knowledge as a component of financial literacy is covered in a practice-oriented manner as the basis of financial behavior. This approach is consistent with the concept of international PISA research of financial literacy (OECD, 2013, 2017a, 2017b, 2017c).

Appealing to the activity component of financial literacy (to skills demonstrated in situations related to finance) reveals that in the main part of interpretations, they mean skills that ensure rational use of personal financial resources, such as the ability to calculate your own budget, the ability to use a bank card, the ability to prioritize the planned costs, the ability to make purchases, and so on.

A practice-oriented approach to determining the content of necessary financial knowledge of schoolchildren and their abilities to acquire this knowledge (for example, to identify it from various sources of information) and to apply it in specific life situations related to the financial sphere is the basis of our research. It is this understanding of knowledge and skills that determined the direction of the created cognitive tasks that contribute to the formation of financial literacy of primary schoolchildren.

In this regard, it was important to ensure an understanding of the relationship between knowledge (perceptions) on the one hand (for example, ideas about savings, rational spending) and on the other hand reasonable financial behavior (for example, rules for making purchases in the store and the need to comply with them).

The main requirement taken into account when developing tasks was the compliance of the tasks content with the age features, cognitive abilities, life needs and interests of primary schoolchildren.

Describing the cognitive features of 7-11 year old schoolchildren psychologists note a number of features that are important for their study. They state that the level of intuitive-practical thinking of younger students is higher than the level of verbal-logical thinking (Menchinskaya, 1989). This conclusion actualizes the importance of knowledge derived from the practice requested by the situations of a particular life activity of the child.

A specific feature of the cognitive activity of this age group is also the inability (at the initial stages of studying) or the initial ability to detect the individual structural elements of the information.

It is also necessary to take into account that the understanding of a scientific term, and its transformation into a concept, occurs as a result of the accumulation of knowledge. The scientific concept is a system of concepts. It is based on the concepts of a lower or more specific levels and separate terms. The process of transforming a term into a concept is a movement of thought from lower, subordinate concepts to higher ones (Vygotsky, 1999). This is the position of Vygotsky suggests that the child's assimilation of concepts from the financial sphere must begin with an understanding of the meaning of very specific words, which in primary school children are already filled with some content. These words include "money", "purchases", "salary", "goods", "savings", etc. The meaning of these words is connected with everyday life, with personal experience developing in the process of satisfying one's own needs and interests.

In addition, primary schoolchildren still has no such a motive for activity as the subsequent connection of cognizable material with future job.

3. Research Questions

What thematic components and practice-oriented skills are included into the content of primary school children's financial literacy? What educational tasks help to form their financial literacy? Our attention was focused on these issues.

First of all in the process of work it was necessary to determine what knowledge and skills may indicate the financial literacy formation of pupils in primary schools, children aged 6-11 years.

Is it possible to say that at the elementary school level children should already master their abilities in issues concerning ideas about financial markets, the activities of various financial institutions? In our opinion, the answer here is unambiguous and quite obvious: such knowledge does not correspond to the cognitive and social experience of elementary school students. The content side of the financial literacy of this age group students should be knowledge that is as close as possible: a) to their cognitive abilities; b) to their experience. For, as Vygotsky (1999) noted: "To teach a child what he is not able to learn is just as pointless as teaching him what he already knows how to do on his own" (p. 206).

Also important is the fact that knowledge of non-specific, abstract, high degree of generalization is outside the zone of personal interest of elementary school children. It is explained simply: in everyday life, the younger schoolchild does not encounter them.

After identifying a complex of knowledge and skills that is relevant for younger students, it was necessary to answer the question of how to present them in a complex of cognitive tasks aimed at developing financial literacy of elementary school students.

4. Purpose of the Study

The aim of the study was to identify the possibility of using the developed tasks on financial literacy as a formative component of teaching primary school children.

In this regard, the definition of meaningful units on the basis of which it is possible to form the financial literacy of the younger student, was not an end in itself. In accordance with the competence-based approach laid in the basis of modern learning, on the basis of the content offered by the tasks (the information contained in them), it was important to find approaches to the development by the students of models of reasonable financial behavior.

In addition, it was important to identify the factors that ensure the motivation of the younger schoolchild to constantly expand their own financial knowledge in order to assess the financial problems encountered in life and search for solutions to them.

5. Research Methods

Negotiations with teachers at seminars and conferences, identifying various aspects of the cognitive and social experience of elementary schoolchildren related to personal and family financial matters.

Examination of expert opinions on models of reasonable financial behavior available to the primary school student.

Development and testing a set of tasks aimed at the formation of financial literacy of elementary school children.

6. Findings

The research results demonstrate the solution of two groups of problems. One of them was the task of selecting content with which it is advisable to acquaint students of this age group and accordingly which is important to reflect in the cognitive tasks. The second group of solved problems included the definition of the structure and form of these tasks, the nature of the questions asked by the younger students and the modeling of the answers they expected.

Negotiations with teachers held at the seminars and conferences showed the fact that primary schoolchildren do not have personal experience of participating in the preparation of the family budget, which is explained by the absence of such practices in a large part of Russian families. Elementary schoolchildren has only beginner personal experience in using bank cards because the majority of Russian children have none of them. A shortage of ideas about possible ways to protect against fraud has also been identified.

At the same time, primary schoolchildren find some experience related to spending pocket money and planning their own expenses, shopping, choosing goods in stores, participating in family plans, including their financial side, etc.

The content of the cognitive task plots constituted the one in which the lack of experience was revealed, and that which was already reflected in the social experience of the children. In this regard, the proposed questions and the formats of answers to them were different.

In each of the topics selected for the development of tasks aimed at the formation of financial literacy of younger students, there are different models of tasks for which knowledge and skills of different levels of complexity are required: from ordinary ideas to primary scientific knowledge and the ability to operate with them. This aspect makes it possible to use these tasks in teaching practice with schoolchildren of different ages in the range of 6 to 11 years, as well as different levels of educational preparation (taking into account the cognitive experience and general educational skills necessary for the tasks performance).

Part of the tasks requires students to bring knowledge from other school subjects, such as Mathematics, Russian Language, Science and Social Studies. In addition, the fulfillment of tasks requires students to master general educational skills, such as understanding the text, the ability to count, the ability to relate their interests to the interests of the family and society, and so on.

The tasks developed for Russian pupils and tested in a number of Russian schools took into account the peculiarities of their cognitive activity. In particular, they took into account the fact that the main type of thinking among schoolchildren of this age group is visual-figurative, and the leading type of memory is emotional-shaped memory. The content of the assignments addressed familiar images and the emotional memory of younger students. The imaginative picture presented to the pupil's mental gaze became one of the features of the tasks for elementary school students. Another feature was that the tasks were given deployed and represented a kind of a small story.

Such a presentation of the material provides for two goals: a) to introduce the child into a real life situation, b) to develop the ability to extract financial information from texts of different types: conversational, narrative, texts with monologues, etc. Note that the second goal, focused on extracting financial information, reflects the combination of the financial literacy development tasks itself with functional literacy as a whole which lays in the formation of the semantic reading, reading literacy.

All tasks were based on everyday situations that depict a child-friendly environment in which he/she or their friends, relatives were or may be involved into.

Example 1

Peter came from school and was very upset.

- What happened? - Dad asked.

- I lost my wallet with my pocket money.

"I'm so sorry," said Dad.

- Will you give me some money until the end of the month because there is still a week left?

- No, Peter, I will not give. We have no extra money. Think how you will manage.

Peter thought: "Why didn't my father give me money?"

Help Peter to answer this question.

The situation reflected in Example 1 is understandable to children and is emotionally perceptible by them. This feature distinguishes all financial literacy tasks developed for elementary school.

The proposed response formats made the solving tasks process easier. Particularly, children were asked to count and write the answer, or choose one or more correct answers from a number of proposed answers, or mark those positions in the response options that coincided with their opinion, or even give reasons for their answer. Moreover, on the basis of the same plot (situation), several questions were asked. In particular, in Example 1, the answer assumed the choice of one correct position from the four proposed. And the next task, based on the same dialogue between the father and Peter, contained the requirement to explain why personal money should be treated carefully, and the answer should be written down.

There are four most typical groups of tasks designed for younger students.

1. Tasks with one correct answer.

This type of tasks is to make the analysis of the four options to find one correct answer. As a rule, all the answers to such tasks are based on the everyday life of primary schoolchildren, on the knowledge and skills that they could acquire either in their own life experience, or in the process of observing the behavior of adult family members. Each position contains a certain fragment of children's experience.

2. Tasks with multiple choice.

This type of tasks is presented in various versions.

The first option involves the choice of situations, judgments, characteristics.

Example 2

- Granny, my mom said that a bank loan can only be taken as a last resort. And what is “a last resort”? - asked Peter.

“This is a case when there is simply no other way out,” answered the grandmother. - I will now give examples of different situations, and tell me which of them can be called “a last resort”.

What situations can be attributed to extreme cases when it is necessary to apply to the bank for a loan? Select them from the list and explain your choice.

Table 01. Task sample

1) The TV was broken down, and dad is ready to spend on the new TV purchasing his bonus which he will receive in 2 months. However, the family decided to take a loan to buy a TV.
2) A car that Dad needs for a trip to work, broke down, and he decided to buy a car on credit.
3) Our friend was seriously ill, and the money set aside for treatment and medicines was not enough, and she took a loan from a bank.
4) Another friend of ours recently was presented with a black smartphone, but it occurred to him to buy a silver one, and he took a bank loan to purchase it.

In this case, the student should analyze the presented situations and, based on everyday experience, on understanding the degree of importance of acquiring this or that thing, understanding the need for deliberation of the decision to take a loan, choose two correct answers and explain your choice. This task is more complicated because it requires the student to understand the difference between the interest of a particular person and the need related to the well-being of the family team.

The second option involves choosing the right actions from a list of actions that combine both reasonable, rational, and unwise, irrational.

Example 3

Mary went to the ATM, inserted the card into a special slot

and put her hand in her pocket to get a piece of paper on which she wrote down the PIN code (1). Putting a piece of paper with a written PIN code next to the ATM keyboard (2), she began to dial the code (3). At this time, the phone rang, and Mary began to talk on the phone (4). Having finished the conversation (5), Mary continued the withdrawal operation and indicated the necessary amount (6). Then she took out the card (7), took the money (8), put it in the wallet (9), put the card and the piece of paper with the PIN-code (10) there and hid it all in the bag (12).

What actions could Mary allow fraudsters to seize the money on her card?

In the given example, it is required, based on child's own experience (experience of actions or observations of the actions of parents), to analyze a certain chain of actions, based on the idea of the possible consequences of each of them. It is quite difficult, because it requires a special kind of insight, the ability to identify (highlight) those actions that have negative consequences. The difficulty is connected with the fact that, as already noted, not only actions should be analyzed, but also their consequences, which are not represented in the task at all. In a number of other sample tasks the decision is combined with the ability to rely on common sense, on a certain familiar social information.

3. Complex tasks.

This type of tasks involves the simultaneous analysis of the data presented in the task for several reasons, their differentiation according to one or another given criterion.

Example 4

Mom said:

- November is coming, and we need to think about the expenses we are facing this month.

Parents made a list of expenses. Peter and Mary suggested with their ideas.

After reviewing their list, the mother asked the children to divide the expenses into two groups: those for which money must be spent on in November (obligatory), and those that can be skipped in November if the family does not have enough money (optional).

Help Mary and Peter to divide their expenses into obligatory and optional: put tick (V) in the appropriate box.

Table 02. Task sample

	Obligatory	Optional
Money for food		
Medicines for grandma		
Rent		
Winter boots for Mary		
Theatre tickets		
Buying a computer game		
Transportation spending (fares in public transport, money for cars petrol)		
Visiting cafe		

The content of the task is complicated by the fact that it is based on primary theoretical concepts related to the understanding of the terms meaning. In this case, we are talking about understanding the meaning of the terms "obligatory" and "optional" expenses. When analyzing the presented positions, the schoolchild relies not only on everyday experience, which is implicitly present in the plot of the task, but also in signs of concepts that distinguish one type of expenditure from others. Also there is a need to distinguish essential needs from private interest. For example, the need for a computer game, especially if it is a trend game and many classmates have it, can be perceived as a more significant need compared to winter boots for another person. However, in this case, the distinction should occur not only on the basis of the moral-emotional attitude to this or that purchase, but also on the basis of the scientific knowledge contained in the conceptual definition.

4. Tasks for calculation.

This type of tasks is represented by two levels, one of which is quite simple, since it is based on simple mathematical skills.

Example 5

Mary and Peter went to their granny by bus. Mom had given them money to buy bus tickets. One ticket (ticket for one trip) costs 28 rubles. Peter had three coins of 10 rubles in each of his pockets, and Mary had a banknote of 50 rubles. The driver gave each of them a ticket and change.

How much money did the driver give to Peter? How much money did Mary get from the driver?

It should be noted that, despite the simplicity of the intellectual operation to solve this task, the presented model plays an important didactic function. It does not only make it possible to reveal the presence of the ability to perform simple calculations, but also implicitly teaches to save money and to count the change.

Another model of tasks related to calculations is more complicated. It requires not only the ability to count, but also the knowledge of certain theoretical ideas.

Example 6

“Let's calculate the amount of our income and expenses for the next month,” said Dad and showed the kids this list:

- 25,000 rubles - dad's salary
- 7000 rubles - payments for rent, water, electricity and gas
- 15 000 rubles – the cost of food
- 12 000 rubles - granny's pension
- 5000 rubles - household expenses
- 1000 rubles – medicines
- 4000 rubles – gasoline for car and fares in public transport
- 2000 rubles - theatre tickets
- 1000 rubles - winter boots for Mary

Count and write down:

Amount of income: _____

Sum of expenses: _____

Obviously, Example 6 teaches and checks not only the ability of counting. In this task, first of all, it is necessary to be able to distinguish the income and expenses of the family. Children need to rely on theoretical knowledge, which implies that income is all that fills up the budget, and expenses is the thing which requires taking money out of the budget.

In conclusion, we note that financial literacy tasks were offered to those children who wanted to complete them. Optional fulfillment of the tasks was immutable condition of work with the proposed material. Moreover, at the request of the student, he could be assessed with a mark for completing these tasks (in the subjects “Science and Social Studies” or “Mathematics”). In this case, students were given the opportunity to understand the mistakes made, to ask the teacher, parents, classmates, to read the recommended material. After that, it was possible to re-do the work consisting of several tasks, to demonstrate a higher result and get a higher mark.

Approbation of tasks during the educational process showed the possibility of their use at different stages and in different forms of educational activity. For example, at the lesson when studying a specific topic (for example, the topic “Family” in the subject “Science and Social Studies”): a) as a motivational factor used at the beginning of the lesson; b) in the middle of a lesson as a means of promoting a deeper understanding of the knowledge gained; c) in the part of the lesson for organizing the conversation with the involvement of their own experience of schoolchildren; d) at the end of the lesson to consolidate the material studied, to identify the degree of its awareness.

7. Conclusion

The design of financial literacy tasks is one of the practice-oriented components of primary school education, which meets the goals of the competence-based approach, in particular, the development of in the ability to solve problems independently arising in the practical field (Johnson & Sherraden, 2007).

Primary pupils' awareness in the necessity of some daily financial behavior patterns (why it is essential to plan a family budget, the understanding of the importance of financial savings and the possible ways to make them, comprehension of the necessity of having a money “airbag” and how to create it, etc.) was the result of incorporating financial literacy tasks into the practice of individual primary school teachers.

Further use of the developed tasks has the significant potential aimed at developing the financial literacy of elementary schoolchildren. Working with them acts as a preparatory stage of the financial literacy formation in secondary and high school levels.

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