The relevance of research. According to positional experts, many citizens of the country do not possess basic knowledge, skills and abilities in the field of economics and finance, and as a result are not able to provide personal financial stability. Numerous sociological studies demonstrate that the younger generation is not able to rationally manage its income, correctly assess possible financial risks. This in turn leads to the fact that they are increasingly becoming victims of financial fraud. The number of countries that adopt and implement financial literacy programs is growing annually. In particular, in Europe there are more than 180 programs to improve the financial literacy of the population. In Russia, at the end of 2017, the Government of the Russian Federation approved the Strategy for increasing financial literacy in the Russian Federation for 2017-2023. [1]

Based on the above, we decided to conduct a study to analyze the process of formation of financial and economic literacy of students in the period of receiving additional education.

Level of problem development. Economic socialization is periodically studied by economists, sociologists, psychologists, pedagogues. One of the first, the importance of financial education was justified by the American economist and sociologist D. Bernheim.

Foreign researchers continue to pay close attention to this problem and systematically consider the formation of competencies in the field of financial literacy among students.

Our analysis showed that foreign researchers most often evaluate the “financial literacy” from the position of knowledge of basic terms and simple abilities.

Following Russian scientists paid tribute to the study of financial and economic literacy Brovchak S.V., Vospitannik I.V., Zemtsov A.A., Osipova T.Y., Silina S.N., Stupin V.Y., Fedorova E.A.

Moreover, unlike foreign scientists, a significant part of Russian researchers evaluates financial literacy, taking into account the ability to assess the financial consequences of decisions.

In the framework of sociological approaches to the problem of developing financial literacy and determining its level, as well as studying economic and financial behavior, the following areas of Russian research can be distinguished: the works of M.S. Schcherbal, D.Kh. Ibragimova, S.A. Shashnov, D.O. Strekov, N.V. Alipperova, O.E. Kuzina and others. The phenomenon of financial literacy among young people in foreign and Russian practice was considered in the studies of A. Lusardi and O. Mitchell, L. Mandel, E. Kempson and V. Petrotti as well as by M.I. Podbolotova, N.V. Demina, M.E. Paatova, M.S. Daurova and others.

The problem that universities face when increasing financial and economic literacy has been investigated in different ways by Russian and foreign scientists from various perspectives.
An analysis of the experience of previous generations of pedagogues allows us to conclude that pedagogical ideas could not be considered as outdated but are also have the significant value at the present time.

Currently, leading experts in matters related to improving financial and economic literacy are: Zonin N.A., Lukyanova N.Y., Tishchuk M.O., Shimshir N.D., Shchepkova I.V. [2, 3]

Our analysis showed that some scientists suggest introducing special disciplines for students in the framework of mastering the educational program at a university to increase financial and economic literacy, while others suggest creating the necessary competencies as part of additional education.

From the point of view of pedagogy, the value of additional education was comprehended by Baburkin S.A., Berezin D.T., Bugaychuk T.V., Savitskaya E.V. [4, 5]

The following scientists purposefully pay attention to the formation of financial and economic competencies in adults in institutions of additional education: Koryakovtseva O.A., Kulikov A.Y., Molokanov V.M., Moiseeva D.V. [6, 7]

The most significant aspects related to improving financial and economic literacy are the subject of research of a number of candidate dissertations, defended at the beginning of the 21st century. Information and analytical materials regularly issued by the Institute for the Development of Personnel Potential of YSPU, materials of round tables, seminars, conferences represent great importance for elucidating the essential aspects of increasing financial literacy through additional education.

However, despite the important contribution that these works make to the study of our topic, it should be noted that the issue is insufficiently developed at the moment, related to the formation of financial and economic competencies of adult students in the process of additional education, taking into account regional specifics.

The object of the study – the process of financial and economic education of adults in the process of additional education.

The subject of the study – the formation of financial and economic competencies of students as an aspect of the educational activity of an institution of additional education.

The aim of the study – to analyze the process of formation of financial and economic literacy of students in the process of additional education.

The aim of the study led to the need to work out the following tasks:

1) to analyze the level of financial and economic literacy of correspondence students;
2) to identify the components of professional education for part-time students, which can be considered as one of the groups of factors affecting the increase in financial and economic literacy;
3) to formulate recommendations for improving financial and economic literacy.

The main hypothesis: the formation of financial and economic competencies of adult students will be effective if:

– the modern educational programs will respond to a dynamically developing society in which more and more attention is paid to financial aspects;
– the development of financial literacy curriculum will be built taking into account the specifics of various population groups;
– the forms of work with students within the framework of additional education should be the following: lectures of a problematic and generalizing type, seminars, practical classes of an analytical and project nature, business games, case technologies, analysis of practical situations, project workshops, master classes, individual and group consultations, independent work, defending the final projects;
– the model that integrates the content, guidelines and pedagogical conditions for the formation of financial and economic competencies, will be developed;
– the formation of a particular financial and economic competence will be determined through the ability of students to assess the financial consequences of decisions made, rather than having an understanding of the basic terms and the simplest skills in this area;
– the content of the course in economics and finance will be developed, focused on the formation of the necessary financial and economic competencies.

Empirical base of research

The study was conducted from 2018 to 2020 and had several stages.

At the first stage (October-November 2018), a preliminary analysis of available research and studies on the topic, curricula on economics and finance used to prepare external students was conducted. The practice of financial and economic training of students in non-core specialties was studied. A model and curriculum were developed to form financial and economic competencies.

At the second stage (December 2018—January 2019), a sociological study was conducted to find out how the formation of students’
What agents and channels of socialization affect to a greater extent the success of economic socialization?

At the third stage (January-February 2019), testing was carried out for:

– the part-time students studying in non-economic specialties at YSPU and Yaroslavl State University (YSU), in order to study the level of their financial literacy;
– students studying at YSU at the Faculty of Economics (acted as a control group).

At the fourth stage (2019), classes were held with the part-time students (YSPU, YSU) using interactive methods.

At the fifth stage (January-February 2020), part-time students of non-economic specialties at YSPU and YSU were tested again in order to study the level of their financial literacy.

During the second test, it was found that part-time students from the experimental group improved financial and economic literacy.

In addition, a number of biographical interviews of students \( n = 10 \) were organized and conducted.

A series of in-depth interviews of teachers was held \( n = 20 \).

A series of in-depth interviews with positional experts was done (teachers, scholars dealing with problems related to financial literacy), \( n = 10 \).

Also, a secondary analysis was carried out on the basis of data and publications of the results of studies carried out by the Institute of Sociology of the Federal Scientific and Technical Center of RAS (Moscow).

**Methodological basis of the research**

Theoretical and methodological basis of the study were:

– general theory of activity (K.A. Abulkhanova-Slavskaya, A.A. Bodalev, V.V. Davydov, A.N. Leontyev, etc.);
– theory of personality development as a process of formation of an individual’s social quality as a result of his socialization and upbringing (B.G. Ananyev, P.P. Blonsky, L.I. Bozhovich, L.S. Vygotsky, etc.);
– practice-oriented and personality-oriented approaches in education (V.V. Kraevsky, M.E. Kuznetsov, M.N. Skatkin, V.V. Serikov, I.S. Yakimanskaya, etc.);
– theory of a systematic approach to a developing personality, exploring the relationship between social systems and the integral qualities of an individual (B.A. Vyatkin, C.B. Merlin, D.I. Feldstein and others);

As well as scientific works of Gruzdev M.V., Dosse T.G., Koryakovtseva O.A., Talanov S.L., Tarkhanova I. Y. [8, 9]

**Results of the research**

We purposefully and systematically conduct sociological surveys among university students in the Yaroslavl region. As a rule, students rate their financial and economic literacy higher than they actually have.

To determine the level of knowledge, skills, abilities of correspondence students studying in non-economic specialties, we conducted testing (January-February 2019).

We have developed a test for testing, which includes the following sections of the economy:

– Economics as a science;
– Microeconomics;
– Macroeconomics.

First, we identified the level of financial literacy on theoretical issues.

It was found that 7 % of boys and 19 % of girls know the subject and functions of the economy. The situation is even worse for part-time students with knowledge of economic research methods. So, only 5 % of boys and 6 % of girls know the methods of economic research. It is gratifying that the tested showed good knowledge of the main economic indicators.

It should be noted that students have a satisfactory understanding of the origin and development of economic science. The respondents know the work of A. Smith especially well.

When answering open questions about modern economic theories, it turned out that students did not know them. We believe that modern person is obliged to have an idea of such theories as: neoliberalism, monetarism, Keynesianism.

When answering questions about economic needs and benefits, the testers showed satisfactory knowledge.

The best tested subjects were: “Production and factors of production”. So, 87 % of boys and 89 % of girls know production factors and factor incomes. Obviously, the previously acquired knowledge affects the preparation for entering a university. Since in order to pass the exam in social studies (the test consists of 66 % of economic issues), you need to know the economy.

Knowledge on the topics: “Production Opportunities” and “The Problem of Choice and Economic Systems” is defined as slightly worse.

The testees showed that they know the material on the following topics: “Economic agents”, “Property as an appropriation relation”, “Property as a bunch of private powers”.

**Economic sciences**

As well as scientific works of Gruzdev M.V., Dosse T.G., Koryakovtseva O.A., Talanov S.L., Tarkhanova I. Y. [8, 9]
It is surprising that students know some topics satisfactorily, and some have mastered “good”, while others do not know absolutely. That certainly says about the quality of their training in the disciplines of the economic cycle.

Students showed excellent knowledge in the section “Money: essence, functions and types.” So, 89% of boys and 93% of girls were able to give the correct answers to the questions in this section.

And again, we see that on some topics most students have fragmentary knowledge. So only 27% of boys and 34% of girls know all the characteristic features of a market economy. Only 17% of boys and 9% of girls answered the questions correctly in the section “Product and money circulation”.

Even such a simple topic as “Markets. Signs and types of markets” caused great difficulties for the tested. But after all, students still being students of a secondary school should have mastered this topic.

Only 21% of boys and 32% of girls know the signs of the market.

The most difficult questions were given to students in the test related to the basic theories of consumer behavior. None of the students know the quantitative (cardinalistic) theory of consumer behavior and the ordinal (ordinal) theory of consumer behavior.

And again, when checking the test, we could observe that students mastered different topics in completely different ways. So, when testing knowledge on the topics “The Law of Demand”, “Non-Price Demand Factors”, “Elasticity of Demand”, “Supply: Concept, Factors, Elasticity”, we again saw good knowledge among students. Obviously, the study of these topics in the framework of social science from grades 9 to 11 gives their results.

Students showed satisfactory knowledge on the topics “Formation of a market price”, “Disturbances of a market equilibrium”, “Market equilibrium and production efficiency”. 75% of boys and 63% of girls mastered the topic “Competition: the essence, functions and methods”. Slightly worse mastered are the topics, such as “The essence, origin and types of monopolies” and “Market of imperfect competition”.

Good knowledge was demonstrated on the topic “Economic consequences of monopolization of the market” and “The state against monopolies”.

Weak knowledge was found among test takers on topics such as “Firm: essence and main characteristics”, “Form of incorporation of a firm”, “Association of firms”.

Difficulties arose in mastering the basic theory of production. So, only 14% of boys and 18% of girls know the production function. 24% of boys and 29% of girls know production volume indicators.

Unfortunately, we observed the same picture when the students answered questions from the following sections: “Production costs: economic and accounting”, “Production costs in the short term”, “Production costs in the long term”.

Students experienced great difficulties in mastering the topic “Conditions for maximizing profits”. So, only 15% of boys and 8% of girls know the income of the company, 9% of boys and 7% of girls know about production volumes that maximize profits, 11% of boys and 6% of girls know the volume and supply of a single company, and market supply.

As rightly noted by sociologists S. L. Talanov, M. Zaitseva, “most educational institutions not only do not provide the necessary financial and economic knowledge, but also do not prepare for entrepreneurial activity”. [10]

Once again, we have the opportunity to state that there are topics on which students do not have any difficulties at all. For example, 92% of boys and 94% of girls know perfectly the earning factor: wages. We can conclude that studying from grades 9 to 11 in the framework of social science such as “The labor market and labor supply”, “Demand for labor”, “Wages in conditions of perfect and imperfect competition” give the result. After the announcement of the test results, we talked with students, and they confirmed our conclusions. Here we give the most typical answers of students.

Ulyana: age: 22.

“At school, we were taught social studies and a number of topics I learned well back then. In addition, I had a tutor in social studies while I was studying from grades 10 to 11, because I wanted to enter the Faculty of Economics”.


“I was very lucky, I had an excellent teacher in social studies and history at school. Studying history was easier for me than social science. I met many topics from social science when studying a number of disciplines at university, for example, in political science, sociology, law”.

Ekaterina, age: 22.

“I did not like to go to school really. The teachers were kind of evil. Taught in an ugly way. There was a normal teacher, the one teaching Labor. In social studies, we were given tests. They said that they were ordered to
train us for tests in social studies. And if we want to learn something, then we need to hire tutors. For this reason, I still do not know much about social studies”.

Very poor knowledge was shown especially by girls on such topics as “Exchange, transfer of property rights and transaction costs”, “Market and uncertainty”, “External effects and public goods”, “Market distribution and social justice”.

Only 53 % of boys and 13 % of girls have mastered the topic “National economy as an object of macroeconomic analysis”. A little better knowledge was shown on the topic “National production output”. So, 57 % of boys and 16 % of girls were able to answer all questions on this topic without errors.

35 % of boys and 28 % of girls know aggregate demand and aggregate supply.

Students showed very poor knowledge on the topic “Consumption, Savings and Investments”, only 11 % of boys and 6 % of girls were able to correctly answer the questions of the topic.

Further, we can state that all questions related to macroeconomics are very difficult for students. So, none of the students knows the conditions of macroeconomic equilibrium and changes in macroeconomic equilibrium.

Students also showed weak ideas on the topics “Money in circulation”, “Demand for money”, “Money supply”, “Money market”.

Students have fragmentary views on the subject of “Macroeconomic instability”.

It is gratifying that the tested students nevertheless have certain knowledge. So, 52 % of boys and 37 % of girls showed satisfactory knowledge on the topic “State in a market economy”.

Gender imbalance was identified. So, 55 % of boys and only 5 % of girls have mastered the topics “The country’s budget system”, “Budget revenues and expenses”, “Theory of taxation”, “Tax system”, “Budget deficit and public debt”.

47 % of boys and 7 % of girls managed to show satisfactory knowledge on the topics “The mechanism of fiscal policy” and “Types and effectiveness of fiscal policy”.

Of particular concern is the very poor knowledge on the topics “Credit: essence, functions and types” and “Commercial banks and the central bank of the country”. Only 7 % of boys and 5 % of girls were able to correctly answer all questions from these topics.

Only 11 % of boys and 9 % of girls showed satisfactory knowledge on the topic “Monetary state policy”.

It was very difficult for students to answer the questions related to economic growth and the content of the economic cycle. 57 % of boys and 32 % of girls mastered the topic of “Privatization”.

After the obtained test results, we compared them with an assessment of the students themselves of their level of knowledge using the Pearson statistical test in Microsoft Excel. It turned out that not every student objectively evaluates himself and his knowledge of financial knowledge and skills. The difference was quite significant. Someone is inclined to underestimate their assessment, someone, on the contrary, to overestimate. In this case, it can be stated that students of Yaroslavl universities (Yaroslavl State Pedagogical University named after K.D. Ushinsky, Yaroslavl State University named after P.G. Demidov, Yaroslavl State Technical University) in the general cannot always objectively assess their financial knowledge.

In addition, according to the test results, it can be concluded that the formation of economic and financial competencies is not ensured through the assimilation by students of knowledge, skills in the development of disciplines of the economic cycle.

In addition to testing, we conducted a sociological study, in which we analyzed the level of financial literacy.

Next, we present the most important data for our study.

As part of the study, we inquired about the views of part-time students regarding the need to introduce financial literacy teaching at a university. In their opinion, this course could be implemented and also demanded among students as a separate discipline (33 %), within the framework of an existing economic discipline (25 %), as an optional lesson (24 %). 18 % believe that teaching financial and economic literacy is not necessary at a university.

The most popular topics for students were financial planning and budget, credits, risks and financial security, consumer protection of financial services (Table 1).

In our opinion, if there is still an urgent need for conducting the subject, discipline in the curriculum of higher educational institutions, it is worth paying attention to the students’ interest in the topics of this discipline. Based on this, it will be possible to build a competent distribution of time, reflecting the most complete content of the issue on each topic. As part of the questionnaire, students had the opportunity to explain their answers; for this purpose, open questions were provided in the questionnaire.
So, 56% of boys and 73% of girls indicated that the university does not teach what is really necessary in life (to be able to properly manage expenses, conduct financial planning, etc.). 34% of boys and 52% of girls noted that theorists, as a rule, give lectures at a university, rather than practitioners. 25% of boys and 26% of girls would like to invite the heads of leading banks (branches) of the country to universities. Another part of the students who took part in the study was not so categorical. In particular, we would like to see in the lectures not only representatives of the banks. Thus, more than half of the respondents believe that, according to the opinion and preferences of the students themselves, people could be teachers in the financial literacy program in the context of the following specializations: independent financial consultants, teachers of higher educational institutions of an economic and financial profile, specialists of state organizations who know how the data work markets (Table 2).

We believe that the popularity of independent financial advisers among students is justified by the fact that this specialization of people involved in such services has recently become known thanks to widespread advertising both on social networks and on popular video hosting sites. Financial advisers explain basic financial theories, ways of investing, investment tools, etc. in an accessible, simple language.

When answering an open question about the knowledge of any tools for budget planning and money savings, students named the following: deposit in a bank, bank account, investment, vouchers, rational distribution of funds, accounting for available income and expenses, creating a financial goal using bank applications bonds.

We, as researchers, were interested in whether the guys were greeted by information about financial services that they could not figure out. As a result, it was found that 45% were not able to figure out the services offered by advertising; 30% of students saw such information but did not show interest in it; 25% were able to figure out such financial information, no questions arose.

### Table 1

Answers to the question: “What topics would you like to study to improve financial literacy?”*  
(in %, of the number of respondents)

<table>
<thead>
<tr>
<th>№</th>
<th>Topic</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Financial planning and budget</td>
<td>60%</td>
</tr>
<tr>
<td>2.</td>
<td>Credits</td>
<td>48%</td>
</tr>
<tr>
<td>3.</td>
<td>Risks and financial security</td>
<td>42%</td>
</tr>
<tr>
<td>4.</td>
<td>Protection of the rights of consumers of financial services</td>
<td>40%</td>
</tr>
<tr>
<td>5.</td>
<td>Investments</td>
<td>34%</td>
</tr>
<tr>
<td>6.</td>
<td>Expenses and income</td>
<td>32%</td>
</tr>
<tr>
<td>7.</td>
<td>Insurance</td>
<td>23%</td>
</tr>
<tr>
<td>8.</td>
<td>Personal savings</td>
<td>17%</td>
</tr>
<tr>
<td>9.</td>
<td>General knowledge of economics and the basics of financial arithmetic</td>
<td>11%</td>
</tr>
</tbody>
</table>

* The total percentage in the vertical might be more than 100, because respondents could indicate several answers.

### Table 2

Answers to the question: “Who do you think should be invited to universities to conduct classes to improve financial literacy?”*  
(in %, of the number of respondents)

<table>
<thead>
<tr>
<th>№</th>
<th>Possible options</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Independent Financial Advisor</td>
<td>52%</td>
</tr>
<tr>
<td>2.</td>
<td>Lecturer at a higher education institution in economics and finance</td>
<td>33%</td>
</tr>
<tr>
<td>3.</td>
<td>A specialist from a government organization who knows how to operate these markets</td>
<td>32%</td>
</tr>
<tr>
<td>4.</td>
<td>Bank representative</td>
<td>14%</td>
</tr>
<tr>
<td>5.</td>
<td>Specialists of management companies of mutual investment funds</td>
<td>12%</td>
</tr>
<tr>
<td>6.</td>
<td>Representative of pension funds or insurance companies</td>
<td>8%</td>
</tr>
<tr>
<td>7.</td>
<td>Representative of non-governmental organizations or public organizations</td>
<td>7%</td>
</tr>
</tbody>
</table>

* The total percentage in the vertical might be more than 100, because respondents could indicate several answers.
As part of the study, a series of in-depth interviews were conducted with positional experts, n = 10.

Below we will give the opinion of a number of positional experts.

**Expert 1**

“Unfortunately, in modern conditions, many universities are not able to attract highly qualified personnel to teach economic and financial disciplines before financing the education system. In the Russian Federation, online financial literacy tests/exams are systematically conducted. Everyone can test their knowledge. The results of the All-Russian online financial literacy tests demonstrate a very low knowledge among a significant part of young people. I believe that it is necessary to introduce special courses within which to form the necessary competencies in the field of economics and finance”.

**Expert 2**

“It is necessary to develop a special course in which it is necessary to consider such important topics for any modern person as monetary policy, financial monitoring and currency control, investment and banking, taxation, insurance, and the pension system. In addition, as part of the new course, to consider typical examples of financial fraud. This course is required to be taught to all students regardless of the form and direction of study”.

**Expert 3**

“Many citizens of the country do not possess basic knowledge, skills and abilities in the field of economics and finance, as a result they are not able to provide personal financial stability. Many young people are not able to rationally manage their incomes, correctly assess possible financial risks. This in turn leads to the fact that they are increasingly becoming victims of financial fraud. It must be understood that this is not only a problem in Russia. Many countries are faced with the fact that their citizens are financially illiterate. Foreign experience shows that this problem must be addressed in a comprehensive manner. In other words, we need to increase not only the literacy of the younger generation, but also their teachers. Many teachers have a PhD in economics, but do not have a basic education in economics and finance. A lot of examples can be given when students complain that the candidate of economic sciences cannot explain what depreciation is. All this shows us systemic problems in higher education.”

**Expert 4**

“Improving the financial and economic literacy of students of non-economic specialties, especially those who are studying part-time, should be built in the logic of the activity approach through solving cases, situational tasks, business and role-playing games, group projects, dialogue interaction, optimally combining lecture and practical classes”.

We see that positional experts believe that it is urgent to increase the effectiveness of ongoing programs to improve financial and economic literacy in the country.

As part of the study, we conducted a series of in-depth interviews with teachers n = 20.

Below, we give some statements of the university teachers.

Professor, age: 90.

“The USSR had a very high-quality education system. Everyone envied our system. Now in lectures more and more foreign authors are cited, and in our time the works of K. Marx and F. Engels were cited. It is necessary to take into account the work of these great thinkers, and we focus on Western experience. This is not entirely correct. Previously, the “Knowledge Society” solved problems, systematically lecturers traveled around the country with the lectures. It is necessary to set the task for the regional branches of the “Knowledge society” so that through their resources they are engaged in improving financial and economic literacy”.

Assoc. Professor, age: 44.

“Students every year are kind of “weaker”, they do not want anything. I know several languages, I teach in English, I have three higher educations. I come to the lectures and see that almost nobody needs anything, they are sitting in their iPhones. To increase financial literacy, it is necessary to introduce a special course, what is being taught in the framework of the economy does not provide what is necessary in everyday practice for a modern person”.

We see completely opposite opinions. This is not surprising, since for these teachers primary socialization proceeded in different historical eras. Teachers are united by the fact that there is a problem with financial and economic literacy and it must be urgently addressed.

**Conclusion**

In Russia, as well as in most countries of the world, the programs to increase financial literacy are systematically developed and implemented, but we still cannot say that we managed to solve the problem. According to the test results, we see that a significant part of the students do not have the knowledge necessary in everyday life.
In addition, the study conducted by us showed that students are interested in having a course focused on improving financial literacy in the institution.

We believe that to increase financial and economic literacy it is necessary:

– to systematically organize the advanced training of teachers in the field of financial and economic literacy of students;

– to develop a course within which it is envisaged to study topics such as financial planning and the budget, credits, risks and financial security, as well as protecting the rights of consumers of financial services. This course must be read, primarily in the framework of continuing education;

– to recommend to teachers the following forms of work with students in the framework of additional education: lectures of a problematic and generalizing type, seminars, practical classes of an analytical and project nature, business games, case technologies, analysis of practical situations, project workshops, master classes, individual and group consultations, independent work, defending the final projects.

References


