

Financial Literacy Enhancement as a Task of Financial Education for Latvian Population

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Abstract Living in a rapidly changing environment, financial literacy is an important set of skills, which allows to effectively manage resources and to use all available opportunities to improve one's quality of life. Actions of different national and international organizations in Europe suggest that financial literacy has become an important topic. The objective of research is to investigate financial literacy and financial education from its theoretical perspective, as well as to evaluate the level of financial literacy in Latvia by carrying out a survey among secondary school students in order to identify the main directions for the promotion of financial literacy in Latvia as part of the European environment. The research results confirmed the common trends that have been observed in the area, moreover, it lead to a deeper understanding of the level of the knowledge secondary school students and the gaps in the area of financial literacy. Furthermore, it allowed to identify the topics that the students are interested in. It also described the need for adequate teaching methods. The current study has identified the stakeholders and their involvement in assisting to raise the level of financial literacy of population. The research focused on co-operation opportunities among stakeholders in order to improve financial literacy among young generation. We can draw some conclusions concerning the current research. One of the most important issue is to promote the cooperation between secondary school teachers and the experts in the field of finance.

Keywords Financial literacy • Financial education • Financial knowledge • Financial behaviour • Well-being • Personal financial planning

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1 Introduction

Personal financial planning, correct evaluation of one's needs for a loan and the ability to repay it, the accumulation and diversification of savings are those abilities that define the quality of future life. Besides, there is a need for skills to attract private capital in order to initiate diverse business. Living in a rapidly changing environment requires fast decision making, so financial literacy is an important set of skills which allows to manage effectively resources, and to see various opportunities to improve the quality of life.

Financial literacy has been a topic of importance since childhood. Thus, the role of various stakeholders in social, financial and educational areas is of great significance. It is also vital for executives, including designers of educational content, financial institutions and, above all, school teachers and parents. Actions of different national and international organizations in Europe suggest that financial literacy has become an important topic also in the agenda of political actions showing the attitude for the promotion of financial literacy not only among young people, but also among other interested individuals on a long-term bases to generate positive result on regional and national scale and leading to financial prosperity in future.

The current research is to investigate financial education including literacy from its theoretical perspective, as well as to evaluate the level of financial literacy in Latvia by carrying out a survey among secondary school students in order to identify the main directions for the promotion of financial literacy in Latvia as part of the European environment.

The subject of research is financial education and the analysis of the importance of its place in creating a wealthy sociality. While carrying out the research diverse methods have been used: qualitative methods including the comparative analysis of financial literacy, gap analysis of economic situation and the role of policy of financial literacy in Latvia. In order to gain results, a survey of financial knowledge of secondary school students in Latvia has been done. Besides, personal observations have been included which demonstrate financial literacy of secondary school leavers studying at higher education institution. As to quantitative research method statistical data analysis was applied.

The research results confirmed that there are common trends of financial literacy, as well as it lead to a deeper understanding of the level of the knowledge among secondary school students and the gaps in the area of their financial literacy. Furthermore, it allowed to identify the topics that the students are interested in. It also described the need for adequate teaching methods.

The current research identified all stakeholders and determined their role in raising the level of financial literacy among young generation. It provided co-operation opportunities and demonstrated how to improve financial literacy among the youth. This paper summarizes the focus of the research and its results. It also includes conclusions and suggestions as well as the Memorandum on how to raise the level of financial literacy in Latvia.

On the basis of the research, several recommendations have been suggested for secondary school teachers and the experts in order to achieve financial literacy of secondary school students. The authors suggest the development of education materials and their integration in school curriculum. It also offers adapted and integrated practical tasks to be included in the curriculum for financial education.

As it is known, poor savings and investment decisions have led to financial crisis lasting for a long period, thus deteriorating financial security of society. The change of Pension system and uncertainty of Social security policy caused Latvian people to secure their own future life by applying for insurance policies and ensuring sound financial planning for their future retirement age.

2 The Essence and Direction of Financial Literacy as a Task of Financial Education

The essence of financial literacy is ability to make informed and substantiated decisions regarding personal finances. They are often related to such questions as money spending for personal use, savings and deposits, investments. Several researchers and different finance institutions have put forward various definitions related to financial literacy. Unfortunately there is no clear definition of financial literacy so far. Despite the variety of definitions, most scientists and specialists agree that financial literacy is one of the elements of education on economics.

American Council for Economic Education has emphasized that financial literacy is understood as one of the basic principles of economy, the knowledge about economical matters and the understanding of main terms of economic. Financial literacy could be defined as management of knowledge and abilities related to financial matters in order to take effective actions and make decisions with confidence in order to achieve person's individual, family and social goals. It includes the ability to understand financial options and future plans as well as spending carefully and management of problem cases that are caused by unemployment. It relates also to saving for old age or children's education. Financial literacy means the development of skills and knowledge acquisitions concerning financial matters to make effective decisions and implement activities that meet individual's personal, family and global community needs (National Council for Economic Education 2005). Summing up various interpretations of the financial literacy provided in different sources, it is worth mentioning that it is the ability:

- to make informative judgements and take effective actions regarding use and management of currency (Schagen 1997);
- to make simple decisions regarding liability agreements, especially in terms of basic knowledge about interest rates within the context of everyday financial choices by Lusardi and Tufano (2008).

Lusardi and Mitchell (2008) point out that financial literacy is the most important concept in economic which requires knowledge for making savings and decisions regarding investments. Financial literacy is individual's competence and ability to demonstrate the acquired financial knowledge in practice. Unfortunately, financial literacy cannot be measured directly. It is possible to educate oneself in financial matters by using practical experience and integrating actively that what has been learned underlines (Moore 2003).

The President's Advisory Council on Financial Literacy (PACFL 2008), convened to "improve financial literacy among all Americans," defines financial literacy and financial education in the following way:

- Financial literacy: the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being;
- Financial education: the process by which people improve their understanding of financial products, services and concepts, so they are empowered to make informed choices, avoid pitfalls, know where to go for help and take other actions to improve their present and long-term financial well-being.

In addition, different international financial organisations in their definitions of the term emphasize the aspect of financial literacy, for example, OECD (Organisation for Economic Co-operation and Development) defines financial literacy as knowledge and understanding of financial risks, as a skill, motivation and certitude that this knowledge and understanding will be used in such a way that allows to make beneficial decisions in relation to financial matters, thus improving well-being both individually and collectively and leading to valid participation in economic activities (OECD 2013). OECD (2005) also defines financial education as the process by which financial consumers/investors improve their understanding of financial products and concepts and, through information, instruction and/or objective advice, develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being.

The above mentioned refers to the financial behaviour of individuals. It is the application of financial skills and the feedback of acquired financial knowledge. The improvement of financial behaviour depends on available of financial resources, financial services and as well as personal attitude (Fig. 1). Individuals need financial literacy in order to cope with the increased complexity of their needs and financial products.

Survey of financial literacy schemes in the EU 27 (Habschick et al. 2007) presents two categories of reasons for financial literacy: the complexity of individual's needs and the complexity of financial products in a structure as it is presented in Fig. 2.

Financial literacy relates to important questions: firstly, knowledge about finances, secondly, the reasons of the needs of financial literacy. The rationale of financial literacy is the necessity to make financial decisions everyday life in order a quality of life in modern society. The term "financial literacy" includes knowledge, understanding and ability to make directly reasoned and correct decisions regarding

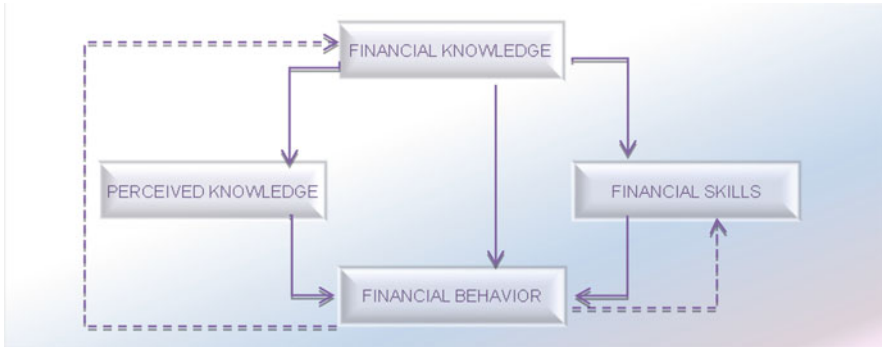


Fig. 1 Conceptual model of financial literacy [Source: Hung et al. (2009)]



Fig. 2 Main drivers for financial literacy [Source: Habschick et al. (2007, p. 5)]

financial matters. Figure 3 demonstrates that financial literacy includes knowledge, understanding and the ability to manage personal finance.

The term financial literacy also means the processes of solving financial matters which include identification of different concepts, their analysis and the ability to identify their causes, as well as the ability to evaluate them and suggest appropriate solutions. OECD has divided the processes related to financial literacy into four sequential blocks (Fig. 4).

Having analysed various opinions related to financial literacy we could summarised that financial literacy is a competence, ability and understanding, which ensures critical approach to evaluation of financial matters and thus, making the right decisions. As to knowledge requirements, similarly to OECD views, the definitions focus on financial instruments, savings, investments, liability agreements, knowledge of main economic terms and budget matters. Appropriate financial education has an important role in building up financial literacy. German researchers Friebel and Kaminski (2012) have successfully defined the financial education topics and structured them into four areas (see Fig. 5).

As pointed out by Friebel and Kaminski (2012), the most relevant areas consist of: money management, handling of life risks, asset and retirement arrangements



Fig. 3 Main topics of financial literacy



Fig. 4 The processes related to financial literacy

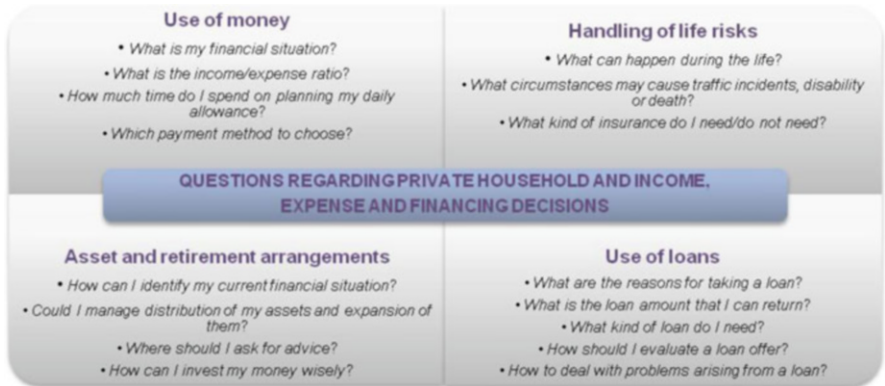


Fig. 5 Focus of financial education at secondary schools [Source: Friebel and Kaminski (2012)]

and loan applications, which could be part of content included in curriculum by teachers when clarifying financial matters in secondary schools.

3 Relevance of Financial Education and Its Activities in Latvia

In 2011 economy in Latvia was the 91st biggest economies in the world, since 2000 it has been characterized by a rapid increase of Gross Domestic Product (GDP) (2011–27, 407 billion USD). However, at the end of 2008 and at the beginning of 2009 due to financial crisis that set in, the level of consumption fell rapidly. In 2008 the GDP of Latvia per capita in accordance to purchasing parity constituted only 56 % from the average level of all 27 European Union (EU) states being the third lowest indicator among the EU states. The rapid GDP increase was largely affected by the domestic consumption. After joining the EU Latvia has access to previously unprecedented financial resources. Various EU funds flew into national economy including households and businesses that provided greater opportunities to receive consumer loans and mortgages. The above mentioned is also proved by the statistical data between 2003 and 2008. The total volume of loans increased by 80 % in Latvia. Due to the fact that households faced huge debts, national economy set in recession. Since the world financial crisis in 2007, and the GDP declined by 18 % in 2009. It was one of the biggest falls in the whole world. In 2010 the government of Latvia faced with budget deficit that constituted 45 % of GDP including 75 % of foreign debt (Synthesis Report 2013).

Since 2004 the commercial banking sector has developed rapidly. However it was set back by the global financial crisis of 2008 because of free capital flow. The population was dragged into huge credits exceeding their credit worthiness. The granting of credits was not regulated sufficiently neither due to banking regulations nor due to the lack of financial knowledge of population. The country did not have clear forecasts concerning economical development, besides potential private risks were not assessed. The creditworthiness of customers was not analysed. Latvia experienced the most rapid decline in economy among in the EU countries in 2009 and 2010. The commercial banking sector suffered great losses. In 2011, the proportion of the proportional acid loans of Latvian households reached 19.6 %.

After the rapid decline and the following implementation of strict fiscal consolidation, Latvia experienced strong economic growth again. Already at the end of 2012, several years before the final term, Latvia even repaid the whole loan amount to the International Monetary Fund. Currently, in 2014, the situation is changing—the consumers have understood and are assessing more carefully the necessity of deposits and usefulness of insurance services during periods of economic decline and crisis in cases, when the financial structure of households is more fragile and substantially more vulnerable to several negative factors. The crisis experience demonstrates that the clients of the financial sector should be unambiguously competent at least regarding the most simple popular financial services—use of accounts, payments, internet bank, loans, insurance services and deposits. Each user of services should have basic knowledge. They should understand financial planning, should be competent in range of offered services and should understand their potential level of risk and security aspects, as well as to be able to compare different

services in order to identify the most suitable for their personal needs. The users should be competent in financial service and consumer rights as well as in state system of sovereign guarantees, also in individual responsibility and potential consequences in case of default.

According to the Central Statistics Bureau (CSB), there is a tendency of slight household consumption increase in last 3 years, however the household expenditure level is still lower than in 2008. In 2013, the average household consumption expenditure was 301 euros per household member, which is 19 euros more than in 2012. In 2013, consumption expenditure reached 91 % of 2008 level in terms of nominal prices, but only 83 % in terms of relative prices. At the same time, in 2013, the gross domestic product per capita reached the pre-crisis level for the first time. Such delay of the final household consumption from the economic growth is associated with the employment rate, which is still lower than before the crisis, as well as with household precaution to incur new indebtedness, which were the main drivers of the consumption until 2008 (Delfi Bizness 2014).

Also the commercial banking sector is experiencing a rise. Following 3 years of losses, 2013 was the second year in a row when the banking sector in total earned profit, the amount of which reached 173 million lats or 246.2 million euros (profit was 122.3 million lats in 2012). Profitability increased during 2013 and return on investment (ROI) of the banking sector reached 8.65 % at the end of December (5.56 %—at the end of 2012). The income and expenses structure has not changed substantially. As commented by the Association of the Commercial Banks, the year 2013 for Latvian banking sector can be described shortly and imaginatively as 3 E-s: euro, efficiency and export. No need to comment the introduction of the euro; with timely investment of work and resources, the bank clients were ensured with comfortable, simple and understandable change of the national currency. The increase of efficiency and the change of business model is at the focus of banks not only in Latvia, but also in Europe and worldwide. The most visible part of this process for clients in Latvia is the development of electronic services and informing clients about them, as well as the decrease of the number of market participants. Whereas the export of financial services is expanding and provides the largest return on investment or profitability.

The introduction of the euro has facilitated a rapid increase of residents' deposits—848 million lats (1.2 billion euros) or 13.3 %, whereas non-residents' deposits increased by 384 million lats (546 million euros) or by 6.3 %. Thus, the total amount of deposits reached 13.7 billion lats (19.5 billion euros). At the beginning of 2013, residents' households restarted to deposit slightly more, but in the last quarter before the introduction of the euro, both household and business deposits increased rapidly—by 390 million lats (556 million euros) and 332 million lats (472 million euros) respectively in 2013 altogether. Credit portfolio decreased by 6.5 % in 2013. Apart from the effect of credit write-off, which rather is an end stage of striking the bank balances of crisis years than a representation of the current situation, the credit portfolio decreased by 3.1 % (including that of residents' non-financial companies and residents' households—by 1.8 % and 4.5 % respectively). The new loans issued by the banks to residents' non-financial companies

and households in 2013 reached 1.6 billion lats (2.3 billion euros), which is 5 % more than in the year before. There was an increase in real estate, construction, sales and transportation sectors. The households were granted with loans for purchase, reconstruction and/or repair of home, which comprise more than 191 million lats (270 million euros)—21.8 % more than in the year before. Proportion of loan payments delayed for more than 90 days in the total credit portfolio of banking sector continued to decrease and reached 8.3 % at the end of December (11.2 %—at the end of 2012). The total proportion of delayed loan payments in the credit portfolio of banking sector dropped from 17.4 to 14.6 % during the year. The balance saved by the banks for unsafe loans decreased to 674 million lats (958 million euros) or 6.1 % of the total bank credit portfolio at the end of 2013 (8 % at the end of 2012), but the ratio of savings and the amount of loan payments delayed for more than 90 days remained high—73.6 %.

The President of the Association of the Commercial Banks of Latvia, Bicevskis (2014) concludes that switch to euro has had a positive influence on the population's habits of using financial services. Despite previous concerns, most of the population and entrepreneurs listened to the practical suggestions on how to be well-prepared for the introduction of euro and to pass safely the period of concomitant circulation of lats and euro. Already starting with timely pay-in of cash into accounts at the end of 2013 and payments using payment cards, as well as with the use of distant services at the beginning of 2014, the clients ensured that the lines in bank branches and outlets were much shorter than expected. Therefore switch to euro has proved that modern culture of usage of financial services is possible in Latvia. A relevant question is whether it will be a long-term tendency. The authors of the current paper have raised the importance of promotion of financial literacy of the society.

Considering the lessons from the economic crisis, it is topical to take preventive measures, including the educating the society about financial literacy matters. When, after the crisis, the national economic indicators start to rise again and the standard of living improves, the financial instruments and services are becoming more relevant to the society. However, the society's knowledge and the level of education on financial matters is not sufficient. In order to achieve long-term improvement of the society's financial literacy, long-term measures are necessary rather than separate actions. An important and unsolved problem is adjustment of education programmes to the new tendencies, because the studies show that the level of financial literacy is low among the secondary school students, which is associated with insufficient examination of the topical financial and economic matters in the education programmes approved by the state, as well as due to the lack of opportunities for teachers who teach economics in secondary schools and the need to improve their knowledge.

General secondary education offers the opportunity to learn the basic economics, however it is an optional subject, therefore less than a half (44 %) of the Latvian students use this opportunity (National Strategy for Financial Literacy in Latvia 2014–2020 2014). Several Latvian experts believe that the quality of financial education in Latvia is under threat in recent years, because, by creating a single elementary school subject—social science, which offers only a fragmented scope of

economics and which mostly is not taught by specialists in economics, as well as by revoking mandatory status of economics in secondary school. The emphasis focuses on financial and economic knowledge is not sufficient for requirements of the modern social and economic life and in order to ensure the understanding of economic regularities and the ability to manage personal financial assets among the graduates of educational establishments (Delfi 2012). The study done by the research centre SKDS shows that the proportion of social science in Latvia is smaller than in other 31 countries compared in the research. Absolute majority of Latvia's population (73 %) considers that the school does not provide sufficient knowledge about personal finance (SKDS 2011).

As the survey of the National Centre for Education (NCE) data indicates, the overall knowledge of pupils about economics and finance matters is average or good. It showed that pupils are able to differentiate the personal income and expenses; less than a half of pupils know, for example, what can serve as collateral and pledge for a loan. The rights of a borrower and their responsibilities and the possible consequences in situations, when there are problems to meet their commitments, are the issues that need more attention. Pupils have not sufficiently developed a skill to obtain information from various sources and the number of mistakes in practical tasks demonstrates poor mathematical skills and very poor understanding of macroeconomics matters is evident. (National Strategy for Financial Literacy in Latvia 2014–2020 2014).

Survey results of teachers in schools in Latvia show that 67 % consider that the education programme provides insufficient knowledge about personal finance matters, also 47 % of young people believe that there are not enough such topics in the content of the programme, as financial planning etc. Besides 80 % of respondents among Latvia's population admit that everyone should know the basics of economics, and therefore economics should be taught in schools as a mandatory subject (TNS 2013). This leads to the conclusion that the overall situation in schools in Latvia have not properly developed school programme in economics and the Latvian teachers' level of knowledge is not sufficient. After graduation, the graduates' knowledge about financial matters is not sufficient. According to the survey results, 80 % of the respondents admit that economics should be a mandatory subject.

In September 2012 Financial and Capital Market Commission (FCMC) held the discussion "Directions for public finance education" about the key questions of financial education. During the discussion Bank of Latvia president Rimshevičs confirmed that there was a low level of financial education in the society. Rimshevičs emphasized that teaching of the questions of economics including financial education are of major importance. Nevertheless, since 2008 the basics of economics is an optional subject at higher secondary schools in Latvia, and many students do not choose it.

Ministry of Education and Science (MES) has to carry out coordination work to improve education content in order to provide better understanding of the level of finances. As to the state level it should be achieved that economics is introduced as a compulsory subject studied by every school student in Latvia. MES determines

education implementation policy, education content and also implements the EU common position in education questions on the national level. MES is also responsible for the national level legislation, including the normative acts of school accreditation and programme licensing.

The National Centre for Education (NCE) is responsible for the management of general education content. NCE provides the development of general education study content and supervises its implementation, coordinates the development of study literature adequate to general education standards, coordinates the activity of interest education and holds support events for the development and talent improvement of students. In order to develop general education content including the questions of finance education and broaden student knowledge and understanding about it, NCE cooperates actively with professional associations and specialists of the field.

Currently in Latvia different activities are being carried out, which envisage work on various informative materials related to the questions of financial education for pupils:

- The Bank of Latvia—has made available a visitors centre called “Money World” where people can find deep and interesting information about the history of money, EU, stock exchange, and other important things using interactive and modern methods. They also have produced special materials about inflation, monetary policy and European money. People have the possibility to learn about the Bank of Latvia and “Money School”. “Money tree” provides information on financial issues. There are also games on inflation, economy and monetary policy.
- Financial and Capital Market Commission as a governmental institution (supervisory agency of the financial sector in Latvia) launched website “Client School”, where current and potential financial and capital market clients can obtain more detailed information and description of the financial services. Before deciding to use any service in Latvia, FCMC encourage everyone to visit new site for instructional materials. The site provides basic information on new financial services to all the clients allowing them to assess potential future risks that may arise and to evaluate their readiness to assume the risks.
- The Association of Commercial Banks of Latvia (ACBL), as a public organization uniting on voluntary principle the banks registered in Latvia and branches of foreign banks, implement the activities strengthening corporate governance and responsibility, safeguarding consumer rights, providing training and improving expertise, compiling statistics and preparing analytical materials. The ACBL also pays great attention to the education of society on money safety: Since 2012 the Association of Commercial Banks of Latvia has started implementing financial education project to improve the level of youth financial literacy in general and vocational education. The Association has conducted research “Study on Situation of Financial Literacy in the General Education among Target Groups of Teachers and Students”. The aim of the research is to obtain information for creating the support system for teachers of social studies and

economics on teaching financial literacy in general education. ACBL has developed digital resources for teachers of economics: educational film about student loans, as well as interactive quiz sets for interactive “Active Expression” voting handsets.

- The main projects of Junior Achievement Latvia include Student Companies, the Business Plan Contest, Business Fairytales and Job Shadow Day. They provide one of the most active everyday programs to create financially educated youth, but becoming a partner school requires participation fee therefore these projects are reachable only for a fraction of young people.
- Commercial banks are another group of institutions that diversifies financial education. They offer lectures about bank products, loans, payment cards and other financial services. Usually these lectures are free of charge because they include bank advertisements, for example:
 - Swedbank has done a survey about spending habits, it also holds contests for secondary school students, for example, “A new finance expert”, besides it also refers to the tax calculator and the budget calculator;
 - Danske Bank Group offers games about money;
 - SEB Bank has established a school for new financier to educate children on financial issues;
 - Nordea Bank offers the financial guide and the financial standards;
 - DNB Bank has made young people handbook “TRY”.

In 2013, the Financial and Capital Market Commission conducted a research about the society groups, which were targeted by various financial education activities by different institutions in 2012 (see Fig. 6).

Figure 6 shows that the vast majority of activities done by different institutions were focused on promoting the level of financial literacy among students and teachers. One of the conclusion that may be made is that the activities for promotion of financial literacy do not reach a large proportion of the society. The FCMC also analysed the most common topics of financial education (see Fig. 7).

Fig. 6 Financial education activities broken down in topics [Source: National Strategy for Financial Literacy in Latvia 2014–2020 (2014, p. 37)]

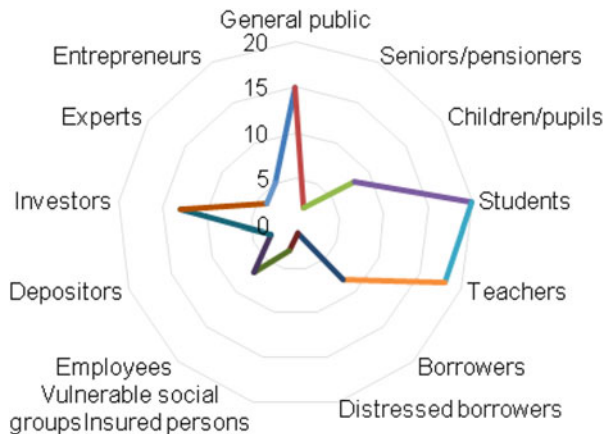


Fig. 7 Financial education activities broken down in topics [Source: National Strategy for Financial Literacy in Latvia 2014–2020 (2014, p. 37)]

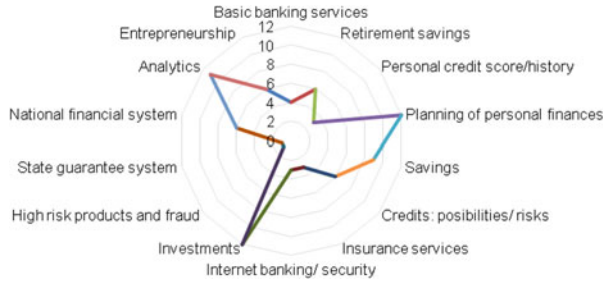


Figure 7 shows that financial education activities focused sufficiently mostly on such topics as the planning of personal finance and investments. Another conclusion is that financial education activities were not sufficient in Latvia in 2012. There is a need for the development of a new unified, complex and systematic approach to the promotion of financial literacy in Latvia’s society.

With reference to global experience and local situation, raising the level of financial literacy in Latvia has become a public objective. In 2013, several institutions—the Ministry of Education and Science, National Centre for Education, Consumer Rights Protection Centre, the Association of Commercial Banks of Latvia, Latvian Insurers Association and BA School of Business and Finance under the guidance of the Financial and Capital Market Commission developed the National Strategy for Financial Literacy in Latvia 2014–2020. On 24 February, 2014, the Financial and Capital Market Commission, the Ministry of Education and Science, National Centre for Education, Consumer Rights Protection Centre, the Association of Commercial Banks of Latvia, Latvian Insurers Association and BA School of Business and Finance has signed the memorandum on the implementation of the National Strategy for Financial Literacy in Latvia 2014–2020, in which the strategic partners have agreed on strategic objectives in the field of financial literacy. The strategy describes the directions of actions needed to implement each goal. Besides, these directions define the necessary tasks and activities of each institution involved (Zakulis 2014).

In order to develop the common understanding of the notion of financial literacy, the Latvian financial and economic education promotion partners have come up with a strategic vision for the desirable development of Latvian society in the field of financial literacy. It includes the following:

- Everyone knows the basics of financial planning and is able to make a balanced personal/household budget;
- The majority of population deliberately accumulates savings and ensures against potential future risks;
- The majority of population is financially independent and does not depend on public support, because they plan their well-being in old age mainly rely on their own earnings and savings;
- The majority of population is able to create a financially sustainable personal financial concept with their financial objectives and options in mind;

- Everyone understands and considers the opportunities and risks of financial sector and free-market economy and is able to use advantages for their own well-being;
- A large part of the population is economically active and with innovative approach, therefore they are competitive in the regional and global labour market;
- A large part of population can give advice and consult on the matters of private finance, as well as to follow the economic processes and encourage others to improve their well-being (National Strategy for Financial Literacy in Latvia 2014–2020 2014).

The National Development Plan 2014–2020 is the main national document on medium-term planning that stipulates a financially sound, sustainable and educated society as a key resource for the economic growth in Latvia. Therefore, objectives of the National Strategy for Financial Literacy are in line with the vision of the National Development Plan: “Economic Breakthrough—for the Greater Well-Being of Latvia” (National Strategy for Financial Literacy in Latvia 2014–2020 2014).

The partners that promote financial literacy in Latvia have agreed on three strategic objectives in the area of financial literacy. A set of activities are specified under each objective and the tasks have been formulated. The partners plan their own or joint financial and economic education activities for further periods.

The first objective is to create the tradition of planning finance and creating savings to enhance Latvian household stability, welfare and financial sustainability throughout the life cycles, a long-term financial planning tradition should be built starting from the payment discipline to the personal savings and investments. To achieve this objective the main directions of the actions include:

1. Enhancement of curricula to provide the development of financial literacy at every stage of general public education;
2. Development of lifelong education resources encouraging self-study options to raise financial literacy among different segments of society (including persons with disabilities);
3. Implementation and maintenance of advisory and consultancy services network.

The second objective is to work out the environmental integrity of financial services to ensure the provision of fair financial services that is adequate to the needs of consumers and encourages consumers to make proper choices based on risk-awareness and responsibility. To achieve this objective the main directions of the actions include:

1. The improvement of public awareness of financial services, their fundamental nature and risks associated;
2. The provision of fair and responsible services adequate to the needs of end-users.

The third objective is the development and sustainability of public finance to increase the public knowledge about the fundamentals of the market economy, as

well as to raise their ability to evaluate national economic processes, including various scenarios for economic development, to improve public financial independence and growth opportunities. The main directions of the actions include:

1. The improvement of public knowledge and their analytical skills regarding the market economy and the operation of financial system;
2. The promotion of public financial and economic activity.

Each of the parties that signed the Memorandum envisages steps to achieve the goals defined by the Strategy according to their branch of activity and competence.

4 A Study on Financial Literacy Among Secondary School Students in Latvia

In order to assess the current level of financial literacy in secondary schools and to create topical subjects and methods for teaching financial matters that would be possible to integrate in existing financial subjects in schools, the study was conducted within the framework of the international research project of life-long education “Financial Education—Levering The Implementation Efficiency in Schools”. Project participants include four higher education institutions and four gymnasiums from four countries: Austria, Germany, Belgium and Latvia.

The choice of research methods is defined by the strategy of the study (quantitative and/or qualitative), its design, aim, question and hypothesis. Various methods may be used in the studies of different type, besides, mixed method approach is applied, however one needs to be aware that each method has its own traditions of advantages and disadvantages. The same method may be used both with quantitative and qualitative strategy, depending on the method type and data acquired and the approach used for data analysis. The authors of the current research used survey method for data acquisition. The authors created a survey for Latvia’s secondary school students from form 10 to 12. In order to conduct the study, a population sample was chosen from five gymnasiums and schools in Riga and Riga region. There were almost 500 students studying between the grade 10 and 12 at the moment of the survey. From this general population a sample was created—at least 40 % of secondary school students, who became the participants. The Survey of students was conducted from January to June, 2014. 199 respondents, aged 16–20, participated in the survey (Table 1).

As the table shows, the majority of respondents are from Agenskalns State Gymnasium—67 or 33.7 % of respondents. Grade 10 is most widely represented—86 of 43.2 % or respondents are in grade 10. More than a half of respondents are female—58.3 %, males are minority—40.7 %. According to the data aggregated by the Ministry of Education and Science of the Republic of Latvia, in 2014, there were, in total, 40,059 10th–12th grade students in comprehensive

Table 1 Main characteristics of the sample

Schools	Number of respondents							
	Form 10		Form 11		Form 12		Number of respondents	
Adazi Free Waldorf School	7	3.5 %	6	3 %	15	7.5 %	28	14.1 %
Agenskalns State Gymnasium	56	28.1 %	2	1 %	9	4.5 %	67	33.7 %
Riga State Gymnasium No. 2	0	0 %	13	6.5 %	0	0 %	13	6.5 %
Riga State Gymnasium No. 3	23	11.6 %	28	14.1 %	12	6.1 %	63	31.6 %
Riga Jugla Secondary School	0	0 %	0	0 %	28	14.1 %	28	14.1 %
Total:	86	43.2 %	49	24.6 %	64	32.2 %	199	100 %
Demographic characteristics	Number of respondents							
Male	81				40.7 %			
Female	116				58.3 %			
Gender unspecified	2				1 %			

Source: Mavlutova et al. (2014, p. 7)

schools in Latvia. 37 % of all Latvia's secondary school students are study in comprehensive schools of Riga.

The aim of the survey is to establish the level of financial literacy among students and to determine the most important directions for the improvement of financial education of secondary school students. Several methods are used in data processing—the quantitative method, qualitative method and statistical method. Since the cluster of respondents is not a general cluster, the methods were adapted to the types of sample processing. Questionnaire was based on the questionnaire created and approved by the project partners in Germany. In total there were 20 questions on six topics (General financial matters, Bank services and crediting, Insurance, Taxes, Investments, Financial terminology).

In general financial matters, the first set of questions refers to those financial issues that students face directly in their everyday life, including shopping, mobile communication services etc. Figure 8 summarizes the topic of the question and students' level of knowledge.

The answers to the questions were numbered in an ascending order:

1. Most of the respondents know the difference between the pocket money and the money the parents provide for a specific purpose. They also understand that there is no legal age restriction regarding the money the parents give to their children. The respondents were asked a question: "I may spend money the parents gave me as I want." 78.2 % of the respondents answered positively to this question.
2. With the growing popularity of on-line shopping, the students were asked to choose one correct ending (out of three listed) to a following sentence: "While surfing the internet and ordering goods and services in on-line stores, persons under 18 years of age should remember that". 44.4 % answered correctly. Poor knowledge on this matter is observed in all groups. It might be due to the fact

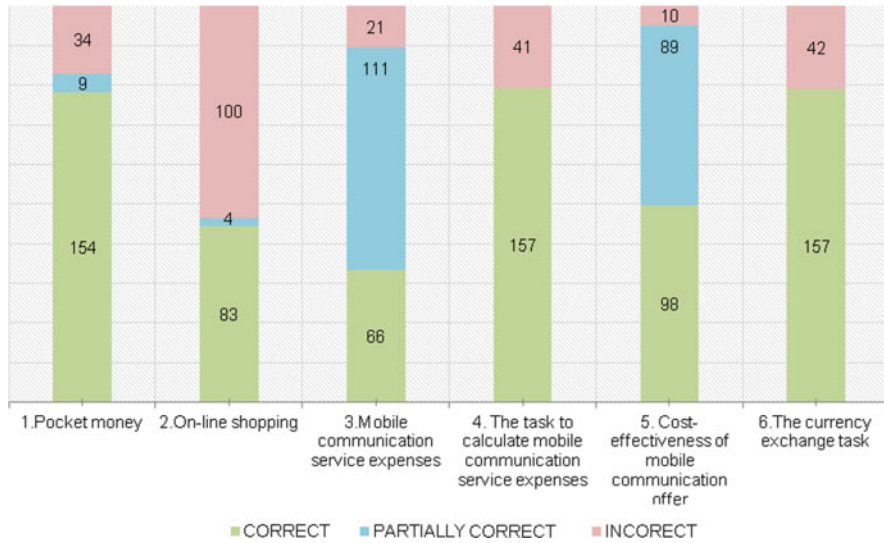


Fig. 8 Secondary school students' survey answers related to general financial matters

that on-line shops do not mention anything about the age restrictions for clients and it is not being checked.

3. In order to find out whether the students know that they should focus when choosing mobile communication rates in order to avoid extra costs, the following question was asked: "If you have a unified mobile communication rate, you may make calls without additional fee. What should you take into account in order to avoid extra costs?" After processing of answers, it was concluded that the majority of respondents chose only one out of two correct answers. Only 33.3 % of all respondents answered correctly the question.
4. The respondents were asked the question requiring calculation: "What are the annual costs of text messages, if three text messages are sent per day and the fee for one text message is 0.07 euro?" The Majority of respondents (79.3 %) gave a correct answer, which was expected as the question is simple in terms of calculation.
5. Most of the students demonstrated the ability to choose the less expensive option depending on the frequency of cell phone usage. The respondents were asked the following question: "What is a less expensive option—a pay-as-you-go refill card or a rate plan?" Only 49.7 % of the respondents answered absolutely correctly.
6. Since the euro was introduced in Latvia, the respondents were asked the question that could show whether they can exchange lats to the euro according to currency exchange rate. The following question was asked: "You have 170 lats. How much is it in the euro?" 78.9 % of the respondents gave correct answers. Since the survey was conducted after Latvia had joined the Eurozone,

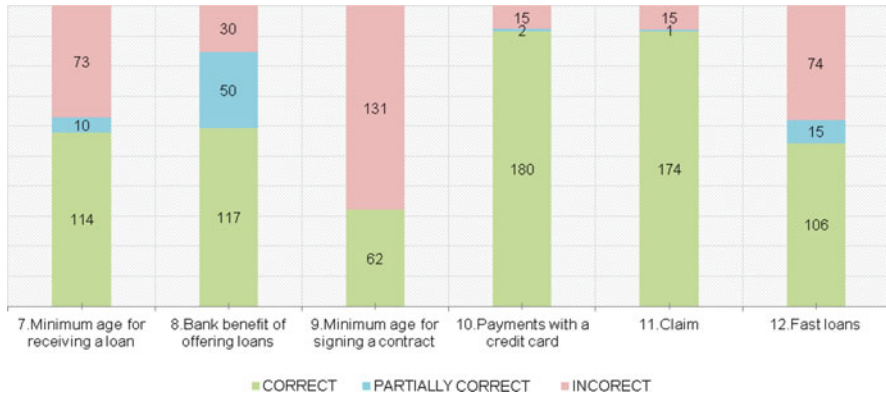


Fig. 9 Secondary school students' answers related to the questions on bank services and crediting

the percentage of the respondents that could not correctly exchange lats to the euro is considered to be too high.

It was expected that the secondary school students will demonstrate better knowledge about general financial matters because they are associated with their everyday life. The conclusion could be that young people do not pay sufficient attention to detailed inquiry about these matters. They often perform financial operations without considering the legal aspects, thus putting themselves under the risk of potential consequences.

Under bank services and crediting, six questions related to banking services, including crediting were included in the survey. It is important to find out the level of understanding of secondary school students' about bank operations, their rights and responsibilities (Fig. 9).

7. The majority of the students are aware of their right to apply for a loan at the age of 18. The respondents were asked the following question: "Can you receive a loan at the age of 18?". Most of the respondents (57.9 %) answered the question correctly;
8. The students are aware of the fact that the banks earn from any operation they offer their clients. In order to determine students' understanding of bank activities and granting of loans, they were asked the following: "Why do the banks offer loans?" Most of the respondents (59.4 %) gave the correct answer—banks earn from granting of loans.
9. The students demonstrated the lack of knowledge about their right to sign contracts. They were asked the following question: "What is the minimum age for signing contracts?" 66.8 % failed to give a correct reply.
10. The students are well aware of how and where it is possible to pay with a credit card. Vast majority of the students (91.4 %) gave a correct answer to the question: "Is it possible to pay with a credit card anytime and anywhere?".
11. In one of the questions, the students were able to choose the correct statement from the options provided: (a) "Savings and loan associations are for people who do not have money"; (b) "The Bank of Latvia accepts money only from

wealthy people”, (c) “Anyone can choose between bank services and services of a savings and loan association”. Majority of respondents (91.6 %) were able to provide correct answer to the question, too.

12. In order to determine students’ understanding on fast loans they were asked the following question: “You want to take a fast SMS loan. What should you know when making a decision about loaning?” 54.4 % gave a correct answer, which is not a good indicator. The fast loan topic should be included in the school programme, because it is not possible to find complete information about this service on websites of fast loan companies.

After aggregation of answers related to bank services and crediting, the authors concluded that the students’ knowledge is good, especially, in cases related to payments with credit cards and loan issues. However, the knowledge on signing a contract and fast crediting is rather poor.

The survey included two questions related to insurance. The aim was to understand the level of students’ knowledge on this topic (Fig. 10).

13. In order to determine students’ understanding on health insurance, the term “Life insurance policy” was provided. The students had to choose a correct match from three provided options. The majority of the respondents (61 %) failed.
14. The respondents were asked the following question: “What does the health insurance policy cover?” The question was too difficult for the majority of the respondents. 48.5 % failed.

The topic of insurance is not relevant among secondary school students because they are too young. The students lack the knowledge on financial issues. Having analysed the answers provided by the respondents, the general conclusion is that the level of knowledge of secondary school students’ is very low. Due to this, insurance is a topic that requires more focus within the framework of the education programme.

The survey also included questions related to the taxation in Latvia (Fig. 11).

15. Value-added tax is a tax on consumption, which is included in the price of a good or a service and is paid by the end-consumer. The students also pay value-

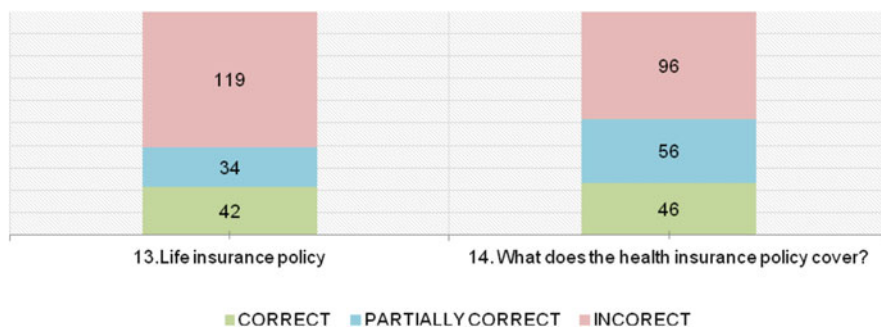


Fig. 10 Secondary school students’ answers related to the questions on insurance (Source: Compiled by the authors)

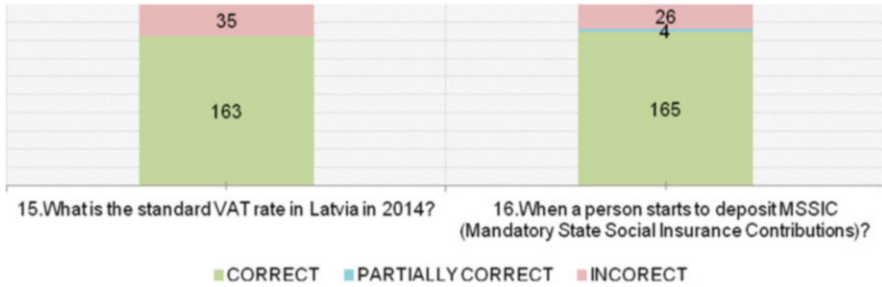


Fig. 11 Secondary school students’ answers related to the questions on taxation (Source: Compiled by the authors)

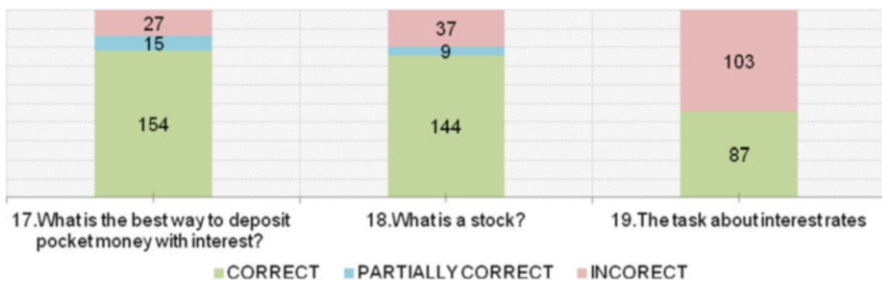


Fig. 12 Secondary school students’ answers related to the questions on investments. Source: Compiled by the authors

added tax when purchasing goods or services. They were asked the following question: “What is the standard VAT rate in Latvia in 2014?” 82.3 % of the respondents gave correct answers.

- 16. The survey also included the question on State social insurance: “When a person starts to deposit MSSIC (Mandatory State Social Insurance Contributions)?” 84.6 % of the respondents answered correctly. The answers show that the majority of the students know that deposition of MSSIC starts when a person becomes employed.

The level of students’ knowledge on taxation is considered to be good. There is a plenty of information available to public on taxation.

The students were asked three questions related to investment of money (Fig. 12).

- 17. The respondents were asked the following question: “What is the best way to deposit pocket money to earn?” The aim of the question was to understand whether the students know how to make deposits and invest their money in order to earn. Having processed the data it was concluded that most of the respondents were able to choose the most profitable option. 78.6 % of the respondents answered correctly.
- 18. 75.8 % of all respondents answered correctly the question: “What is a stock?”.

19. In order to find out the students' abilities to make a decision on investments, the students were asked to do a calculation. The following task was given: "You have saved 900 EUR. After two years you will need 1000 euro for buying a car. What should be the interest rate to receive 1000 EUR for a two years deposit?". The question demonstrates the students' inability to calculate interest rate correctly. This also demonstrates low level of practical skills. 45.8 % gave correct answers. Unfortunately, it demonstrates that majority of the students are not able to forecast their profit from an investment and they do not know how to calculate the interest rates. Initially, it was expected that the grade 12 students would succeed with the task. The results showed that the grade 10 succeeded and most of them provided correct answers. There is no evidence to explain good knowledge of grade 10 students. It could be that their knowledge in economics and mathematics is much better than those who are older.

The survey results demonstrate that the students' knowledge on investments is good, however they have difficulties to make practical calculations. The programmes of mathematics and economics should focus more on practical tasks.

During the survey the respondents were offered 20 financial terms for the explanation. The term loan is familiar to the students in most cases. It could be also explained that companies advertise fast loans thus the term becomes more familiar. As to the terms credits and loans the students are also familiar with them. Whereas the term trust services is not recognised by students. 40.7 % of the respondents have not heard of it. This term is common to the professionals working in the sector, therefore, the students haven't heard of it. Only 4 % of the respondents were able to explain the term, although it was not the most difficult one to explain. Only 2.5 % of the respondents were able to explain European Financial Stabilisation Mechanism. 61.3 % has heard of it. This is due to the fact that it belongs to specialise terminology of the sector. The students indicated that they have heard about pawnshop services and leasing. The respondents were also able to explain these terms. 79.9 % of students can explain what the term pawnshop services are. 71.9 % knew the term leasing. The number of pawnshops in Latvia is high, thus most of the students have heard about them. Similarly due to advertising the term leasing services is also widely known. Students and their parents use online shops in the same way the terms discount, the Bank of Latvia and savings account seem to be familiar, only less than 2 % failed. The terms FCMC, overdraft interest rate, discount rate and overdraft were not known to students. The research shows that students could identify the terms but they were not able to explain them. The results show that more than 50 % of respondents could not explain 13 terms. It is the result of advertising and mass media influence. The terms were familiar to students but they were not able to explain them. To carry out the research the survey result were analysed by using several factors: school, grade and gender. Several mutually related statistical variables were calculated, as well as financial literacy (FL) index, that is the ratio of correct answers (see Table 2).

Table 2 Summary of the correct answers in the students' survey

	Maximum number of correct answers	Minimum number of correct answers	Average number of correct answers	Mode	Median	FL index	Number of surveys
Form distribution	Form 10	16	11.08	11	11	0.5839	86
	Form 11	16	11.96	13	12	0.6294	49
	Form 12	16	11.45	12	12	0.6028	64
School distribution	Agenskalns State Gymnasium	16	11.85	11	12	0.6247	67
	Riga State Gymnasium Number 3	16	11.08	10	11	0.5865	63
	Riga State Gymnasium Number 2	14	12.23	13	12	0.6437	13
	Jugla Secondary School	15	11.50	12	11.5	0.6053	28
	Adazi Free Waldorf School	15	10.54	13	11	0.5853	28
Gender distribution	Female	16	11.72	11	12	0.6166	116
	Male	15	10.94	12	11	0.5761	81
	Gender unspecified	16	13.50	-	13.5	0.6757	2
In total	16	3	11.42	11	12	0.6012	199

Table 2 shows that the students provided about 16 correct answers from all needed, one student answered only 3 correct questions. On average there were 11.42 correct answers out of 19.

The students of Riga State Gymnasium Number 2 succeeded in most cases. On average they gave 12.23 correct answers. Thus, they achieved the highest index among schools—0.6437. The students of Adazi Free Waldorf School on average gave 10.54 correct answers that is the lowest FL index of 0.5853. Taking into account the factor of grade, grade 11 students succeeded in most cases. It could be the result of the study program in economics that they do in grade 11. As to gender distribution, the knowledge of females is better than that of males. The average number of correct answers is 11.72 and 10.94 respectively, whereas financial literacy index is 0.6166 and 0.5761. In general, the level of financial literacy of students is average. The research shows that there is the need to develop practical skills of students in financial calculations, as well as to provide knowledge on it.

The studies conducted in Germany and Belgium demonstrate that 14 % of secondary school students have financial literacy. 31 % of students think that their financial knowledge is poor (Federal Association of German Banks 2012). The survey carried out in Belgium demonstrate that only 44.5 % of young people aged 18–24 can complete financial literacy tests with relatively good results (Synthesis Report 2013).

5 Conclusion

The lessons learned from the economic crisis show that preventive measures should be taken. One of them is to educate the society on financial literacy matters. After the crisis the indicators show that the standard of life improves, thus people have the opportunity more financial instruments and services. The society needs enough knowledge on financial matters.

In order to achieve a long-term improvement of the society's financial literacy, long-term measures should be taken. The role of educational establishment's becomes more important in the formation of financial literacy of the society. Educational programs should be adapted to new trends. It is important to improve the quality of programs in order to facilitate financial literacy grows among secondary school students. The system of exams needs to be improved, the survey showed in sufficient results on financial and economic matters. There is a need for the state to pay more attention to these questions. Another important factor is the improvement of secondary school teachers whose subject is economics.

The conducted study shows that students have general knowledge on financial matters, however they face difficulties to do practical tasks such as calculations and resource planning. The students lack the understanding of the needs to know financial operations. Finally, the study results demonstrate that the students are familiar with many financial terms and services, however they are not able to explain them.

It is obvious that further education including lifelong education is required in order to develop financial literacy of teachers in all subjects related to finance, they need training on methodology and material development which could enhance the development of skills needed for financial knowledge. Measures should be taken in relation to interdisciplinary teaching. It is advisable to test the students' knowledge before they enter the studies on economics. Similarly, the students should be tested after the acquisition of knowledge and skills in various subjects that consider financial issues.

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