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Financial education and financial literacy in the Czech education system

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Abstract

This paper reacts to the current situation in our society and the need for financial education in schools and for adults. Today's world demands financial and economic literacy. This paper outlines the importance of economic and financial literacy in primary and secondary schools (ISCED 1, 2, 3) in the Czech Republic. Research findings in the Czech Republic and from the World Bank have shown high levels of household debt while also indicating the need for higher levels of financial education. Financial literacy and financial instruction in schools would be an effective tool to prevent such developments. The findings and conclusions of this study were obtained through a questionnaire survey in secondary schools (ISCED 3) and through a content analysis of strategic documents adopted at both national and international levels. Simultaneously, we compared the findings, that is, the students' knowledge of financial literacy topics, with the corresponding official documents. This paper describes the level of financial literacy knowledge among high school students. Furthermore, as financial education is currently a mandatory component of primary school education in the Czech Republic (ISCED 1, 2), the paper also describes the current situation of financial education in Czech schools, including methods of implementation. Only time will tell if financial literacy and subsequently financial product utilization of Czech students improves, but it is already clear that the introduction of financial literacy into the school curriculum is necessary.

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1. Introduction

Financial education and financial literacy have recently become subjects of interest for governments, various financial institutions, education institutions, media and other entities at national and international levels. As a result, we have seen the implementation of many studies, projects, and strategies, or even the incorporation of financial literacy topics into school education. This study aims to present the current situation in financial education in Czech primary and secondary schools (ISCED 1, 2, 3) while based on a survey it also describes the level of financial education knowledge among Czech high school students.

Many countries are currently interested in financial education and financial literacy. One such example are the activities of the Organization for Economic Cooperation and Development (OECD), which in 2003, as a result of low levels of financial literacy in its member states, launched a project of financial education. In connection with the international financial crisis, the International Network on Financial Education (INFE) followed suit in 2008. Its main task was to disseminate and support the importance of financial education by producing strategies for individual member states. The OECD also presented their definition of the term financial education.

“Financial education is 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” (OECD, 2005, p. 26).

Individual countries have processed or are currently working on their national strategies for financial education, which represent a systematic approach to reinforcing financial literacy of their citizens. The Czech Republic adopted an updated version of this strategy in 2010. The table below shows data about the implementation status of national strategies for financial education in individual countries.

Table 1. Status of National Strategies

National Strategy	Countries
Countries that have implemented a National Strategy	Australia, Brazil , Czech Republic, El Salvador, Estonia, Ghana, Ireland, Japan , Malaysia, Netherlands, New Zealand, Nigeria, Portugal, Singapore, Slovenia, South Africa, Spain, United Kingdom, United States , Zambia
Countries that are at an advanced state of design of their National Strategy	Armenia, Canada , Chile, Colombia, India, Indonesia , Israel, Kenya, Korea , Latvia, Lebanon, Mexico , Malawi, Morocco, Peru, Poland, Romania, Russian Federation , Serbia, Sweden, Tanzania, Thailand, Turkey , Uganda, Uruguay
Countries that are considering the design of a National Strategy	Argentina, China, France, Italy, Saudi Arabia

In: Russia’s G20 Presidency and OECD (2013a), Advancing National Strategies for Financial Education. A Joint Publication by Russia’s G20 Presidency and the OECD. p.14

The Czech “National Strategy for Financial Education” also provides a comprehensive definition of financial literacy. “Financial literacy is a set of knowledge, skills, and attitudes of a citizen necessary for ensuring his/her own financial well-being and the financial well-being of his/her family within the present society, and for his/her active involvement in the market of financial products and services. A financially literate citizen is familiar with the issues of money and prices, and is able to manage his/her personal and/or family budget responsibly, including the management of financial assets and liabilities in consideration of changing life situations.” (MFČR, 2010a, p. 11).

Documents published in the United States, United Kingdom, Canada, Australia, OECD and the European Union mention terms such as ‘financial capability’, ‘financial literacy’ and ‘financial education’ (Orton, 2007, p. 7–8). These terms are applied differently in different contexts based on the specific circumstances in the aforementioned countries. For example, the Policy Research Initiative defines the difference between financial capability and financial literacy and understands financial capability as a broader term than financial literacy, because it more accurately captures its essence and includes (Orton, 2007, p. 15):

- Financial knowledge and understanding,
- Financial skills and competence,
- Financial responsibility.

Generally we can consider people financially literate if they have some knowledge of what the financial market offers, understand basic financial terminology, apprehend the meaning and role of specific bank products or they know how to manage their own financial resources. Within the scope of analysing the financial capabilities of Czech citizens, the specification of capabilities that a financially literate person possesses is associated with management of household finances. Financially literate people should:

- have a broad idea of the current amount of their own financial means,
 - know how to manage a family budget and to monitor its fulfilment,
 - know how to plan expenses at least a month ahead,
 - be prepared for an unforeseen loss of main income (financial reserves)
- (MFČR, 2010b).

We need to realize that it is also connected with other abilities related to financial products or making reserves. To mention a few:

- building cash reserves – regular savings,
 - planning ahead for old age,
 - considering several options when selecting a financial product,
 - knowledge of basic financial product portfolios,
 - appreciate risks associated with some financial products
- (MFČR, 2010b).

This topic immediately brings up several questions. These relate not only to the actual level of financial capability (adults or students) but also to the conceptual methods of education and training teachers, who are responsible for financial education in schools. These issues are partially addressed in this study.

2. The Need for Financial Education

One of the reasons for an increased interest in the problem of financial education, or the inquiry into financial capability, has been levels of individual and household debt, which have been constantly rising. Just the same was the situation with foreclosures or personal bankruptcies, which are based on court orders in the Czech Republic. The only possible way to eliminate this phenomenon is to improve financial awareness through education, not only in schools but also in classes open to the public and implemented primarily with the support of European Union funds.

Including financial capability into primary and secondary school education programmes seems like one possible way to prevent an unhealthy debt burden and to utilize and create financial reserves. The inclusion of financial education into the primary and secondary school curriculum has been an enormous step forward because prevention seems to be the most effective measure. Children learn financial literacy before they have their own financial responsibility or negative experience with the world of money. They will not manage financial issues until they become adults, but by then they will already be aware of the possible risks. Thus, we can assume that the generation which takes financial education courses will be better prepared for life, and only with them will the situation in this area significantly improve. This optimistic development is not however sustained by the findings of the Federal Reserve Bank of Cleveland survey, which reported that there was no conclusive evidence that financial education programmes led to better financial knowledge and generally better financial behaviour. The research sample was composed of American students, who had taken courses in personal finance or money management (Economist, 2013).

The Czech Republic is not the only country which faces the need to improve financial literacy. The OECD countries reacted to the negative consequences of low financial literacy in their population by extending the original project and creating the abovementioned International Network on Financial Education, INFE. Its main purpose is to increase global awareness on the relevance and significance of financial education and to support member states in helping them develop national strategies of financial education. On its website, the OECD published the results of a financial literacy study titled “Measuring financial literacy: results of the OECD INFE pilot study“. The Czech Republic also participated in this pilot project, which focused on financial knowledge, behaviour, and attitudes of the adult population across 14 countries that joined the International Network on Financial Education, INFE. This 2012 OECD study put the financial illiteracy of the Czech population between 56 and 65% (Atkinson, A., Messy, F., 2012). Other countries covered by this study had similar results.

Due to the social significance of this subject, other studies and surveys describing the current level of financial capability have been carried out at both national and international levels. One such example is the OECD international study titled **PISA** (Programme for International Student Assessment), which has been undertaken in the Czech Republic in triennial cycles since 1998. Since financial literacy is not only a negative phenomenon in the Czech Republic, in 2012 the focus of the PISA project was directed towards this area of knowledge. The international PISA project research compares the knowledge and skills of 15-year-olds worldwide. The spring 2012 assessment introduced a financial literacy component for the first time and this was the first assessment at this level worldwide. In the Czech Republic alone, the project evaluating financial literacy involved 1 200 15 year old Czech students from 300 randomly selected schools. Students from 18 countries participated in this optional PISA 2012 module and its aim was to evaluate current levels of financial capability by testing their knowledge as applicable in everyday life situations (OECD, 2013b). The report on the financial literacy of youth published by the OECD in July 2014 indicated that Czech students scored above average when compared with students in the other 17 countries. The Czech Republic placed sixth, while the highest average scores were achieved by students from Shanghai, Belgium and New Zealand (OECD, 2014). The survey also showed **that financial literacy education was widely accessible** because it was available at 83.1% of primary schools. We can, thus, assume that the students’ knowledge might to some extent be due to the systematic nation-wide instruction of financial education at schools. These claims lead to the following research questions.

Research Questions:

- What is the current situation in financial education in Czech primary and secondary schools?
- Does the knowledge of financial capability topics among Czech high school students correspond with the level laid down by the binding documents?

3. The Objectives and Purpose of the Study

The purpose of this study is to describe the current situation in financial education in Czech primary and secondary schools and to support the idea that this instruction can become an effective tool for prevention of unhealthy household debt and other negative phenomena connected with inefficient management of personal finances.

Furthermore, we will present the results of a research study which primarily focused on finding an answer to the question of how students in high schools without economic specialisation, that is, in schools where economic literacy instruction is a novelty, perceive the need and importance of the individual knowledge and skills that form the basis of financial literacy according to the established Financial Literacy Standards. The Financial Literacy Standards for primary and secondary schools set the ideal degrees of financial literacy for each specific level of education.

Specific research objectives were:

- find out what students think about the usefulness of financial education in schools for their future practical needs,

- check the current level of financial literacy as set by the Financial Literacy Standards, which represent the expected outcomes of this education,
- describe the current situation.

4. Research Methods

To obtain the required findings and conclusions of the present study, we conducted a questionnaire survey in high schools (ISCED 3) and content analysis of national and international strategic documents. We simultaneously used a comparative method to link our findings, or more precisely the students' knowledge of financial literacy subjects with relevant binding documents.

The questionnaire survey was given to 248 high school students selected by quota sampling. It was conducted in high schools which showed interest in organizing a lecture and explanation of basic financial literacy subjects for their students. The lecture itself contained not only an introduction to the importance and contents of financial literacy instruction in high schools but also a presentation connected with teaching individual topics of financial literacy according to the Financial Literacy Standards. These were namely topics concerning household economics, use of payment methods, familiarisation with pricing tricks, and the essence of inflation and consumer rights.

Data collection and analysis took place in the course of 2013/2014 academic year according to the lecture schedule at participating schools. The sample population included respondents, specifically senior students, of four high schools in the Olomouc region. These were high schools with specialisations in electro-technics, polytechnics, gastronomy, food processing, trade, and services. The survey itself took place immediately after the lecture and we can, thus, deduce that the students' answers were relevant considering the preceding explanation of some economic terminology.

The research survey applied the commonly used quantitative method so that the results could be interpreted in relation with the highest possible number of respondents and with the objective of obtaining significant amounts of data with minimal time and financial costs. The selected technique was a questionnaire with 23 closed questions allowing the respondent to answer on a three-point scale (yes, no, I don't know). At the end of the questionnaire, there was a question establishing the proportional level of financial literacy knowledge the students acquired had during school instruction. The questions focused on the importance of instruction, application of given issues in real life and checking the knowledge of individual topics, which all represent the desired results as set by the Financial Literacy Standards. The questionnaires were given to the respondents face to face and therefore the response rate was 100%.

5. Findings

Current state of financial education in Czech primary and secondary schools?

Financial education in schools has not received as much attention as it deserves. Many teachers have approached the instruction of financial literacy with fear because they did not receive financial education training in the course of their university education. A majority of teachers (73%) have, however, attended a financial education course in the last 12 months, which showed their commitment to systematically pursue this issue (OECD, 2014). The instruction itself was usually conducted by teachers of mathematics or social studies and in one third of schools that have provided financial education classes for over 5 years, by the head teacher (Česká školní inspekce, 2013).

A fundamental development in financial education was the transformation of financial literacy into a **mandatory component of primary education** as of 1 September 2013. Yet, financial literacy is usually not a separate course but is incorporated into Social Studies, Civics, Citizenship Education, Mathematics, or is carried out in some form of project-based learning within the curriculum of these courses. The form of instruction and allocation of hours remain voluntary. Some primary schools have earmarked only ten hours for financial education over the course of the four years that students receive upper primary school education. Some schools, though, dedicate up to one hour a

week, for instance in the ninth grade. The final decision is usually up to the school management and based on teachers' recommendations. There is not any uniform methodology of how to teach financial literacy that the Czech School Inspectorate could follow. Neither is there a recommended allocation of hours for financial education. Most schools (89%) implement the academic content of financial literacy in existing courses and the most common educational method is solving problems based on everyday life (89%). Remaining applied methods are didactic games and dramatic education, and in terms of forms of instruction, they often offer group education or visits to financial institutions (Czech School Inspectorate, 2013).

In compliance with the adopted documents "Financial literacy build-up system at primary and secondary schools" and the updated version of "National Strategy for Financial Education", schools can voluntarily teach a new concept of financial literacy. They are however obligated to incorporate the Financial Literacy Standards into their educational programmes, *i.e.* according to the modified framework educational programme. Primary schools can also obtain so called "European money" from the EU Money for Schools project.

The final outcome is that financial education at a primary school level has an **interdisciplinary nature**. As also shown by the results of the PISA 2012 international survey, it most habitually integrates social sciences, mathematics and ICT (OECD, 2014).

The Financial Literacy Standards were incorporated into all framework educational programmes for secondary education published so far – from 2007 to 2010. Thus, secondary schools are currently obliged to include financial literacy in their education programmes.

The actual concepts of financial education can take many forms. Teachers now have access to many educational and methodological materials and other teaching tools. A complex overview is published by the methodological portal "Framework Education Programme", Ministry of Education, Youth and Sport of the Czech Republic, and National Institution of Technical and Vocational Education, together with web portals of various non-governmental organisations that provide information in the field of financial education (Financial Literacy into Schools, Understanding Money, Teaching Financial Literacy, etc.).

Basic approaches, which can be applied and combined when teaching financial education, include predominantly:

- *Educational publications and textbooks;*
- *Methodological manuals* (for instance Financial Literacy in Teaching, Literacy in Education – manual for teachers, methodological manual, Financial Literacy – exercises and methodology, practical examples);
- *Web portals* Ministry of Education, Youth and Sport, methodological portal RCP.cz or Research Institute of Education in Prague (for instance examples of good practice);
- *Educational presentations, worksheets, e-learning courses, economic games* (Financial Freedom), *online quizzes, educational series* (Of Money and Men), TV programmes (for example, Summa Summarum or Where is my Money?, Debt Busters, So That Debt Doesn't Hurt, etc.).

Teaching financial literacy should essentially focus on didactic aspects of instruction, which entails mainly inclusion of various didactic games, situational methods, project-based learning, activation methods, and interactive features using modern ICT technologies. Instruction should contain as many practical elements, examples and demonstrations as possible in order to ensure the most effective application of acquired information in future life.

Familiarity with financial literacy topics among Czech high school students

Findings related to the second research question will be presented via the aforementioned questionnaire survey.

The questionnaire survey results unequivocally showed that the students found financial education desirable and useful for future life; 67% fully and 25% partially identify with this view, while 25% of respondents answered this question negatively. The ratio of students' opinions is clearly displayed in figure 1.

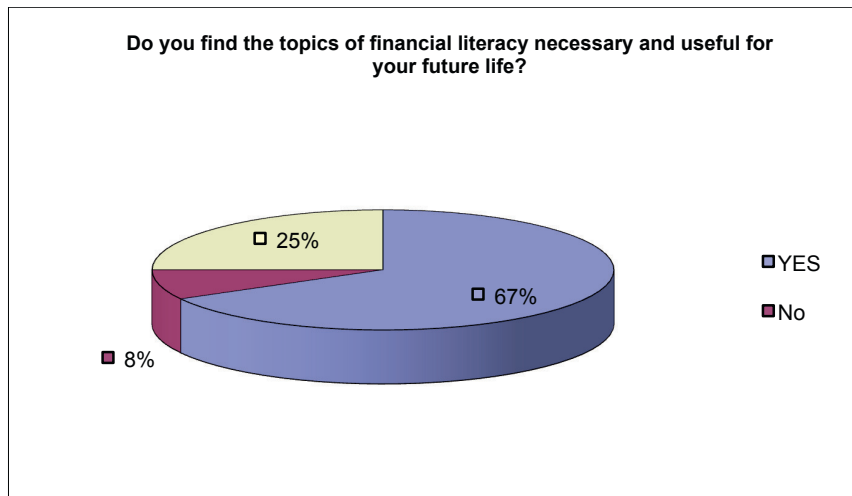


Fig. 1. Desirability and usefulness of financial literacy subjects

The research study data provided additional findings, which inform us about the current level of financial literacy that should be acquired by this education. The content is fully compatible with the issued Financial Literacy Standards as part of the Financial Education System for Primary and Secondary Schools.

Survey results:

- How to use a debit card or current account – 73 % of respondents, 17 % somewhat;
- How to use exchange rates and how to exchange money – 46 % of respondents, 17 % somewhat;
- How product, goods or services prices were set and what they included - only 42 % of respondents, another 45 % somewhat;
- A significant share of respondents – 78 % - understood price differences of products, goods and services based on customer, place or season, another 13 % somewhat;
- Only 56% of students were knowledgeable in pricing tricks, 29 % believed that they somewhat understood them. These were, for example, showing prices without VAT, 3 for the price of 2, etc.;
- 52 % of respondents could recognize (and another 35 % partially) false offers, for instance prices, purchase terms and conditions;
- Only 18 % knew and 43 % thought they knew the possible ways of fighting inflation;
- 73 % of respondents could distinguish and another 20 % could partially distinguish between regular and irregular household revenues and expenditures;
- Only 64 % of students could successfully draw up a family budget (revenues and expenditures), while 28 % thought they could somewhat successfully do it;
- 46 % of respondents could suggest how to try to resolve a potential family budget deficit, while 38 % could somewhat accomplish this;
- On the contrary, 76 % of respondents could suggest how to deal with a potential family budget surplus, while 17% could also somewhat accomplish this;
- Only 44 % knew and another 35 % partly knew how to use available financial means (saving, investment into financial products, and so forth);
- 39 % of respondents would be able to and 38 % partially able to choose the most favourable investment product;
- Only 36 % of students would know and another 34 % would somewhat know how to choose a loan product best suited to their needs;
- Only 25 % of students could assess and 36 % could partially assess loan collateral methods;
- 50 % of respondents thought they could and 31 % partially thought that they could avoid over-indebtedness;

- 22 % of respondents knew and 38 % partially knew how interest rates were set;
- 10 % of respondents could tell and 22 % could partially tell the difference between interest rate and APR;
- 43 % of respondents could choose and 38 % could partially choose for themselves the best insurance product;
- 42 % of respondents completely and 39 % partially use consumer rights when purchasing goods and services;
- 49 % of respondents can and 30 % can partially express the potential consequences of unfamiliarity with purchase contract provisions.

Thanks to the conducted research survey, we also learnt that the **level** of knowledge, abilities and skills in the field of **financial literacy** provided by school education reaches only 50 %. We can, thus, assume that the remaining share is a result of the respondents' life experience or a consequence of environmental influence (*i.e.* parents, friends, media, and other factors which contribute to the formation of an adult individual's personality).

The above described findings indicate the **shortcomings in the current degree of students' knowledge and in the level of their financial literacy**. Overall, the results are identical with the level of knowledge found among the adult population as reported in our previous paper. The worst results documented concern ignorance in financial products management and consumer rights' protection. Average results were typical for understanding of household economy or rather household budget management. The most optimistic results were found with respect to payments and market orientation. Still, we can generally assume that the level of financial literacy among high school students is definitely not adequate to the needs of an adult individual. Our research identified specific areas that need to be targeted in order to reach the level set by the Financial Literacy Standards.

6. Conclusions

According to the respondents' reactions, we can assert that **financial literacy education has its solid base and merit** because people are not well informed about the world of finances in terms of both managing their financial means and unwise indebtedness. Consequences can in fact lead to catastrophic results such as foreclosures and personal bankruptcies. One way to eliminate this negative development is to educate new generations of people.

The purpose of this text was to cast light on the problem of financial literacy and to present existing capabilities and the current situation in the area of teaching financial literacy in primary and secondary schools.

Financial education has an **interdisciplinary character** because it integrates social studies, mathematics and ICT. Topics associated with financial literacy are being incorporated into existing courses which already have their own curriculum and allocation of hours. In this respect there is much room for expanding the curriculum with financial literacy topics. Financial issues are not perceived as comprehensive compound information. Furthermore, the use of teaching materials is also not in mutual harmony as each school acts at its own discretion. At times they do not look for new materials and schools are happy to use the textbooks of existing courses, so in reality education is not widened by financial literacy instruction. However there are many publications available on the market which are published in accordance with the Financial Literacy Standards, and other didactic resources, which support students' active participation in the learning process.

There is quite clearly a good reason for financial education in schools today and it will also contribute to the world of personal and family finances. Educating new generations in financial literacy presents a very real **possibility of eliminating a negative development in society**. Improving financial literacy of the population by school education is not in itself without issues but will definitely lead to some level of prevention in managing personal and family finances.

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