FINANCIAL LITERACY IN PRIMARY SCHOOLS FROM THE PERSPECTIVE OF TEACHING METHODS

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Abstract

Financial literacy and financial education appear to be an effective tool for the prevention of overindebtedness and preventing individuals and households from making poor financial decisions. This article presents up-to-date information on the education system in the Czech Republic and the methods by which children are introduced to financial education. Nowadays, financial education is a compulsory component of basic school education (ISCED 1, 2). Moreover, the article defines the teaching method framework for teachers of financial literacy. This article also introduces the design and results of qualitative research focused on the identification of the teaching methods that are used in financial literacy education, and it evaluates the effectivity of these methods in the educational process. The findings and the conclusions of the article are drawn from two research methods. The first part includes a semi-structured interview with teachers who teach financial literacy in the chosen primary school. In the second part, the experiment – which was teaching the chosen financial education topic – is used as a research tool. The results of the research will identify the teaching methods used in the process of financial education in primary schools. This study evaluates the efficiency of the particular teaching methods based on the experiment which was conducted and the interviews. The conclusions of this research should contribute to support the premise that appropriately chosen teaching methods of financial education in primary schools can contribute to the proper financial behaviour of individuals in society.

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1. Introduction

Over the last few years, financial education and financial orientation has become an issue of concern. Its significance grows with the demographical, economic and political changes in society. The increases in life expectancy and retirement age, labour market volatility and unexpected life events call for the financial security and stability of individuals and their families. It also includes planning financial decisions for the future. Financial education is undoubtedly significant not only for individuals, but for society as a whole, and the economic system. (Advancing National Strategies for Financial Education, 2013, p. 16-18).

Using a quantitative method, this study aims to analyse the situation from the perspective of financial education teaching methods in primary schools. The qualitative study sets these subgoals:

- To identify the current methods used by teachers in the financial literacy education process, with all the negative and positive aspects;
- To examine the application of different teaching methods for the selected financial literacy topic and evaluate the effectiveness of these methods.

The following text will introduce the issue of financial education in Czech primary schools and define the teaching methods in regards to their usage in this particular study.

One of the reasons pointing to the necessity of financial education is the increasing indebtedness of individual households. The development of modern technologies enables simple and wide-reaching information distribution, making financial offers more accessible to almost everyone (Sdělení komise, 2007, p. 3-4). Financial education is not a guarantee of financially responsible behaviour in consumers within the financial market, not even of financial security in their old age, however it is necessary to “understand it as the complement to consumer protection and the responsible behaviour of financial service providers” (Sdělení komise, 2007, p. 4). The sooner financial education is implemented, more possibilities can be achieved.

In the future, the following priority themes as defined by the National Financial Education Strategy (2010, p. 14-15) are considered to be very important: active and responsible participation in financial markets connected with knowledge of consumer rights, and access to meaningful and correct information. Additionally crucial is the prevention of household over-indebtedness and the long term inability to repay their debt. To only orient oneself in financial matters is not enough. It is important to encourage responsibility for the financial health of a household, including planning a budget and deliberate investments, e.g. a mortgage. With respect to the ageing population, it is necessary to also consider financial security in old age.

To understand how financial education matters as a whole, it is necessary to define the term ‘financial literacy’, which is considered to be the final goal to be reached by the attempts at financial education. It is not possible to implement one’s financial education without knowledge of being financially literate, and financial literacy can be viewed as a specialised component of economic literacy. It is possible to include the ability to raise money within the framework of financial literacy, and also the ability to consider the consequences of personal decisions as an influence on present and future income, to learn about basic macroeconomic indicators, and to get an idea of the tax system and the role of the taxes in a civil society. A financially literate person is formed by a complex set of the knowledge, skills
and attitudes towards values which are applied in today’s society (Národní strategie finančního vzdělávání, 2010, p. 11-12).

The standard definition of the term 'literacy' includes skills such as reading, writing and counting. Essentially, it is possible to say that literacy means “the ability to apply certain specific skills” (Průcha, Walterová, Mareš, 2003, p. 85-86). The content and the framing of the definition of literacy reflects the development of a changing society, hence, the term is complex and changeable at the same time. It includes not just, for example, reading skills, but also the understanding of more complex texts, graphs or tables, the ability to solve various math problems and understand their application in miscellaneous life situations in today’s society (Průcha, 2009, p. 223).

The need for a definition of literacy in the financial field comes about as a reaction to the changing situation in society. It is possible to approach this definition from two points of view. The first one is the international point of view, which was created as the result of international cooperation. The second point of view offers definitions formed by national strategies which were created in order to address the needs of citizens in specific countries.

At the international level, the Organisation for Economic Co-operation and Development, or the OECD for short, plays a primary role, defining financial education in its publication Improving Financial Literacy (2005, p. 26) as follows:

“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).

Although the OECD does not define financial literacy directly, the following working definition was provided for the purpose of testing the PISA survey (Programme for International Student Assessment) at the international level:

“Financial literacy includes knowledge and comprehension of financial concepts and risks, furthermore the motivation and confidence necessary to apply this knowledge and comprehension with the intention to make efficient decisions in different situations related to finance, to improve the financial situation of the individual, and enable his inclusion in economic life” (PISA 2012: Koncepční rámec, 2012, s. 10).

The definition of the term in the Czech Republic stands in contrast to the international definition and the working definition of financial literacy as defined by OECD. This definition is part of a document titled The National Financial Education Strategy. It was developed through cooperation between consumers’ and business associations, which took part in a work group organized by the Ministries of Finance; Education, Youth and Sport; and the Czech National Bank. This definition is the product of their consensus and their application of international experience (Národní strategie FV, 2010, p. 11). The definition reads as follows:

“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
A 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” (Národní strategie finančního vzdělávání, 2010, p. 11).

In comparison with the OECD’s definition of financial literacy, the above definition is more structured and focused on personal/family budget management. The structure includes three components: monetary literacy, price literacy, and budget literacy.

Monetary literacy comprises the necessary abilities to manage cash and noncash resources, and the use of tools intended for this purpose. Price literacy is needed for the understanding of price mechanisms, the development of money value over a particular time period, interest rates, and financial service fees. Financial literacy also includes personal/family budget management. Budget management includes the capability to set financial goals, decide on the allocation of financial resources and making a financial budget from the perspective of different life situations. The management of financial assets and the management of financial liabilities are distinguished as two unique elements. In both cases, it implies knowledge of market products and the capability to select the most appropriate one (Národní strategie finančního vzdělávání, 2010, p. 12-13).

The OECD started a financial education project in 2003 after analysing the negative impact of the low financial literacy of citizens. In 2008, the OECD widened the project by adding the International Network for Financial Education (INFE), which focuses on the importance of financial education at an international level. The financial education web project, the International Gateway for Financial Education (IGFE), was launched that same year. It includes a database of 70 countries from all around the world and comprises more than 120 programmes for financial education. The INFE has formulated The Guidelines for implementing financial education in schools.

2. Problem Statement

This article resulted from the idea that financial literacy and its education in schools could be an effective tool in preventing over-indebtedness and other individual or household financial problems. The inclusion of financial education in primary and secondary school educational programmes is regarded to be an important step forward; prevention seems to be most effective. Children learn financial literacy while not having any financial responsibility or negative experiences with finance, before financial questions become important in adulthood. It is possible to assume that generations who undertake financial education will be better prepared for life, and that the situation in this field will change significantly. This optimistic prediction is not confirmed by the conclusions from research by Federal Reserve Bank of Cleveland which states that, unfortunately, no connection was found between financial education and financial knowledge which would lead to more responsible financial behaviour. The research studied American students attending the course “Personal Finance and Expense Management” (Economist, 2013). The following segment of the article deals with the question of financial education in Czech schools.

Financial responsibility and the development of financial literacy skills in the youngest generations are nurtured by the inclusion of financial education in the formal educational system, more precisely in primary education. A key document in the field of education is The System for Developing Financial
Literacy in Primary and Secondary Schools, which was issued on the basis of a Government Resolution, dated December 7 2005, and updated in December 2007. This document was formed by an interdepartmental work group that included representatives from the ministries of Finance; Education, Youth and Sport; Industry and Trade; and other organizations including the Pedagogical Institute of Prague and the National Institute of Vocational Education. Support for financial education in primary and secondary schools is one of the two pillars of the National Strategy for Financial Education. The state is responsible for the implementation of financial education through the Ministry of Education, Youth and Sport. An emphasis on financial education is also placed in the so-called “Framework Policy” of the Ministry of Finance, in the area of consumer protection in the financial market. In connection with this document, a group of experts from the financial sector was formed to represent a stable platform for the state, consumer associations, and subjects of the financial market to have a discussion about conceptual questions, especially regarding the protection of consumers in financial markets.

One part of The System for Developing Financial Literacy in Primary and Secondary Schools are the “Standards of Financial Literacy”, which define the ideal level of financial literacy for different target groups, in other words, the target at different levels of education. These standards are implemented into the Framework Educational Program (for basic education in primary and secondary schools) or it serves as a basis to form unique educational programmes and activities leading to the development of financial literacy levels in pupils and the adult population (through further education). Aside from the standards, the document includes the roles of individual subjects and their cooperation in the development of financial literacy, definitions of financial literacy, planned methodical materials, studies on the current levels of financial literacy, educational programmes, activities, and a regular evaluation of the effectivity of these educational programmes. Since September 1 2013, the “Standards of Financial Literacy” for primary school education has become a compulsory part of the educational content of primary schools.

Although financial literacy is compulsory in primary and secondary school education, the method of application itself is only a recommendation. Each school approaches the education of financial literacy individually and chooses “a method of administering the set educational goals” (Kalhous, Obst, 2009, p. 307), specifically the “arrangement of the educational process, thus creating an environment and a way of organizing the activities of teachers and pupils in the classroom” (Kalhous, Obst, 2009, p. 293). Financial education itself may, therefore, be carried out in various schools in different ways. The specific form, method, and organisational structures of the education process of financial literacy are under the control of individual schools. Although differences among the approaches arise, they are united by the effort to develop and increase the level of financial literacy.

The main goal of financial education should be an effort to connect the knowledge of financial matters and their practical application in everyday life, which should not be simplified only to working with numbers. For this reason, it is recommended to apply methods which implant education into a broader context, develop critical thinking skills, to encourage the pupils to actively participate and to introduce the issues in real-life contexts. It is possible to use, for example, problem solving or heuristic methods. Pupils do not learn the skills in a set block, but independently seek and find solutions in scenarios very similar to real events. Another option is presented by the scenario method is based on role playing and simulation. These methods enable one to drawn on the issue to a deeper understanding and
the development of social skills. Various life situations can be simulated by different educational games in the form of classic board games or computer programs (Hesová, 2013, p. 12-16). “Advanced simulation levels represent, for example, a fictional company. It is a virtual company established by the secondary school pupils who make a business according to normal commerce practice, but they use fictive money” (Hesová, 2013, p. 15). It is also useful while teaching financial literacy to develop social skills and learn to cooperate within a group. The inclusion of cooperative forms of education contributes to the stimulation of the pupils, the improvement of their interaction and communication skills, and this also teaches tolerance. The pupils can share experiences, form their own opinions, and show their strengths. A project-based education plan can be used in a similar way (Hesová, 2013, p. 14).

Since the goal of this article is to analyse the situation through a qualitative approach, from the perspective of educational methods of financial education in primary schools, it is necessary to briefly define basic terms and methods from the field of teaching.

Financial education is quite specific in many aspects. The financial world is very dynamic, and quickly changeable – what was true yesterday may not be today. Therefore, the teacher should be able to update the content of the course of study. The task of the teacher is not to be a financial advisor, but to develop the financial skills of the pupils and teach them financial responsibility. Financial education is oriented on the development of skills for life, therefore should be closely connected with everyday life. To gain information and understanding is necessary, but this is not the priority of the financial education. It is advisable to prepare educational activities that enable preferably authentic experiences of financial situations which lead to the internalization of strategies for responsible decisions. The assumption is implemented by the following methods:

- Role-play and heuristic methods which relate the training to the pupils life and develop their financial skills, but enable respect of privacy at the same time,
- working with texts that teach pupils a critical approach to information not only from finance world,
- educational games simulating everyday life events and encouraging the strategical thinking of pupils.

(Finanční gramotnost ve výuce: metodická příručka, 2011, p. 980)

The Czech School Inspectorate shows that one of the most frequent methods used in the development of finance literacy has been problem solving in everyday life (89%). If the school uses more than one method, then in most cases this includes problem solving in everyday life (71% of schools with one method). The presence of some methods was more significant, featured in more than half of the monitored schools. These schools have developed financial literacy through three methods simultaneously, including group teaching used in three quarters of the schools. Furthermore, educational games were used in these schools; more than one third of the schools organises visits from financial institutions and more than one half of the schools apply scenario methods. The scenario method has been used in non-terminal lower primary schools only at the lower level. The investigation was conducted in 214 schools in total (primary and secondary) during the school year of 2012/2013 (Czech School Inspection, 2013).
Teaching financial literacy should focus on the didactic aspects of education. Notably, this should include educational games, role-play methods, project teaching, activity methods and interactive features in the form of modern ICT technology, etc. There should as many practical elements as possible, demonstrations and examples, with respect to the efficient use of information in the future.

3. Research Questions

1) Which teaching methods are used by primary school teachers for financial literacy education?

2) What is the effectiveness of these teaching methods in this particular educational process?

4. Purpose of the Study

The purpose of this study is to analyse financial literacy education in selected primary school from the perspective of teaching methods. Why did I decide to focus on the perspective of teaching methods? Because, I presuppose that correctly chosen methods are possibly the key to achieving a higher level of knowledge transfer with higher permanence. Hence, I can compare my research with the study from Lewis and Klein (2002-2008), who presume that financial literacy teaching in primary schools does not make sense because most of the required information gathered at this time is usually forgotten.

Qualitative research was conducted with the sub-goals to identify the present methods used by teachers in the process of financial literacy education at the selected school, with all the pros and cons considered, furthermore, to evaluate the efficiency of the application of different educational methods in the selected topic. For a more comprehensive overview of the issue, I sought to answer the following research questions: how do the teachers evaluate the financial skills of their pupils, what is their opinion on inclusion of financial education in the Framework Educational Programme, whether financial literacy education influences the future behaviour of adults, what is the aim of financial literacy, and are the teachers ready to undertake these courses? From the perspective of educational methodology, I asked: what were the preferred methods and why, which methods are considered to be pupils’ favourite, which are not, and most importantly, which methods are the best to achieve financial literacy.

5. Research Methods

The qualitative research was conducted in two consecutive phases. In the first phase, semi-interviews were made with primary school teachers from the chosen schools who are involved in teaching financial literacy. Questions for the interviews were divided into three sections. Section A provides information about basic respondent data – gender, duration of employment, and probations. Section B is concerned with financial literacy, asking how to achieve the goal of financial literacy and what sources for financial literacy education there are and how teachers prepare themselves for the classes. Section C deals with the educational methods used by the teachers, furthermore, the pros and cons of active methods, or reasons for preferring particular methods.

The second phase includes an experiment in teaching select issues: household budget, and cash and cashless forms of money in the class labelled “5.A”. Each issue will be taught with a different teaching method, so that efficiency can be compared. Classical educational methods and activity methods
were chosen for the comparison. The issue of household budgets was taught first with the use of method of discussion and problem solving methods. These methods are recommended for financial literacy development. Moreover, pupils worked with an interactive smart board, which served as a model calculation and visual support. The next class dealt with the issue of cash and noncash forms of money, using the methods of explanation and working with texts – classical educational methods. In both classes, the students were provided with worksheets which could serve as a substitution for personal notes.

Both classes were evaluated in several ways. The lessons were observed and reported in the class inspection form. The subsequent method of evaluation was an evaluation questionnaire which students received after the end of the lessons. This questionnaire was supposed to capture the pupils’ point of view regarding the lessons. Due to the age of the pupils, 9-10 years old, a scale evaluation and two open questions were chosen. The evaluation of the transfer of knowledge and skills from the classes was performed using didactic test, which was filled out by pupils three days after completion of the class. The tests were focused on the knowledge gained by pupils in the classes. At the end of the class, there was an open interview with the teacher to receive feedback focused on the evaluation of the application of various educational methods.

The survey was carried out in a selected lower primary school. I chose this school because it is an exemplary school in the Olomouc Region regarding the use of the interactive smart board, which I wished to use during the research. Additionally, the school features extended IT education and good audio-visual equipment. The research itself focused on pupils from the fifth year and on teachers from lower primary schools involved in the teaching of financial literacy.

Research was based on the intentional selection of the class “5.A”, which has 19 pupils in total comprised of 9 boys and 10 girls. There are two students educated according to the individual educational plan in this class. Total average mark in maths is 1.47 (a B+ or A- in the letter grading system). I chose the fifth class because it is the second most important milestone in the pupils’ education, more specifically the end of the second phase of lower primary education. I started from the fact that the third, fifth and ninth classes are the evaluation points of pupils’ education results. The second research group consists of six lower primary school teachers with an average teaching experience of 12 years.

6. Findings

The interviews with teachers discovered the following interesting findings. The teachers use the activity method during financial literacy teaching most often – educational games, discussions, worksheet work, interactive smart boards, self-made materials or internet source materials. Hence, teachers choose the methods recommended for financial literacy teaching. Teachers evaluate the economic skills of the pupils individually; they mentioned wide differences among the pupils and stressed the important role of parents. According to the teachers, parents influence their children in a very strong way and form their approach to financial management. Financial literacy education is included in other subjects, especially mathematics, and national history and geography in the lower levels; and mathematics, civics and family education in upper levels. These findings can be compared to research by Opletalová and Kvintová (2014) which focused on the application of financial literacy education in primary schools. All the teachers agreed with the inclusion of financial literacy in education. The teachers were not sure about the
influence of financial literacy education in primary schools on the behaviour of pupils in adulthood. Financial literacy in primary schools has been taught since just 2013, therefore there is no research available which analyses the influence of education on adults. We can only presume what the impact of financial literacy education in primary schools will be on future generations of adults. Research in the future will certainly be interesting to compare with the long-term research of Lewis and Klein, which took place from 2002 to 2008. In this study, the authors concluded that the respondents of a vocational course on financial education do not show any distinct signs of higher financial literacy and more appropriate economic behaviour than the sample of respondents who do not attend the course. Regarding the teachers’ preparation for the classes, most of the teachers would welcome support in the form of educational materials, tools, books, or methods. For now, the teachers find resources on the internet or prepare the materials themselves. I focused on the materials for financial literacy education available in the third chapter and I was surprised that, except one teacher, none of the educators mentioned specific materials or educational portals. The next most interesting question of the interview was in regards to the best methods to approach the goal. According to the teachers, the ideal method for financial literacy teaching is the activity teaching method. The teachers reported that the class should be entertaining, capture attention, and pupils should participate in discussions, etc. But, of course, they know that none of the methods can satisfy all pupils and the teachers cannot avoid classical teaching methods such as explanation. As a disadvantage, the activity methods are time consuming and do not necessarily satisfy all the pupils. The opinions of the teachers corresponded to Maňák’s assertion (2003): “There is no universally efficient method that can meet all the targets of the pupils.”

Another goal of this study was to apply different teaching methods on a chosen topic, involving the household budget, and cash and noncash forms of money, and to evaluate their efficiency. The findings are presented through the evaluation of following hypotheses:

Hypotheses no. 1: The pupils find the activity teaching method more entertaining than the classical teaching method.

In the evaluation questionnaire, pupils evaluated the class featuring activity methods as being 94% entertaining, but the second class was evaluated as entertaining only by 92%. When the pupils were supposed to mark the class along a scale of 1 (excellent) to 5 (poor), the first class obtained 1.1 and the second 1.5. On this basis we can state that, regarding entertainment value, there are only minimal differences between these two classes. Hence, I can explain that the level of entertainment includes many factors that cannot be eliminated from the educational process. It confirms the questionnaire-based enquiry from Tikalská (2008), showing that pupils prefer games and competitions in classes: computer work, experiments and working with the interactive smart board, etc. If the educational principles of the class are respected, including the demands for preparation, organisation and management, the educational method itself does not play such an important role. Notably, it is the teacher of the class who can affect whether the pupils have fun or not.

Hypotheses no. 2: The pupils achieve better average marks in the test verifying their learned knowledge by activity methods in comparison with the test verifying their knowledge learned by classical teaching methods.
In the first test, where the pupils were taught by activity methods, the average mark was 2.15. In the second test, the pupils were excellent and reached the average mark 1.89. Again, the difference is not significant. The results can be explained as follows: although the students were prepared by activity method and participated more in the class, the first test was more difficult because of its last task. The last task included the interfiled connection between the financial and mathematic literacy, which was not included in the second test. The final mark reflected the comprehension of the issue and numerical mistakes. Better results in the second test were achieved by pupils thanks to the slower pace of the class, more directive approach of the teacher, and more frequent explanations, which is what the pupils are used to at this age. The activity method was proven to be more effective in the case of learning new terminology. The second hypothesis was disproven.

Hypotheses no. 3: The pupils learn terminology better in the class using activity methods.

According to a mistake that occurred in both tests, it is possible to prove the hypotheses. The pupils were better able to remember new terminology from the first class, using activity methods. While correcting the mistakes of the test, I realized two quite interesting things. Firstly, the pupils in the second test did not use the actual test assignment containing the answer to the first exercise, where I asked for terminology. Secondly, pupils who did not attend the class used correct terms, or knew the synonyms which could not be evaluated as wrong. The third hypothesis has been proven.

Hypotheses no. 4: Pupils who attend the classes achieve better average marks for both tests than pupils who did not attend the classes.

In this case, the pupils who attended the classes only achieved a better result in the first test. This demonstrates that a lot of knowledge of finance is obtained by pupils outside of school. In both tests, the differences between pupils were minimal. So, it seems that just in our case the method used for teaching financial literacy did not have a big impact on the pupils. After consulting with the teacher, I found that the pupils are not used to continuous preparation for classes and homework on the subject matter unless they are told to do so. The fourth hypothesis has been disproven.

7. Conclusion

The research presented aims to analyse financial literacy education in primary schools from the perspective of teaching methods. The subsequent results were achieved using the methods mentioned above, particularly, the identification of teaching methods used for financial literacy education in primary schools. Teachers use the activity methods most often—educational games for financial literacy teaching, discussion, worksheets, the interactive smart board, self-made materials or internet sources. Teachers choose the recommended methods for financial literacy teaching. All the teachers agreed with compulsory financial literacy education in primary schools. Whether financial literacy education in primary schools impacts the behaviour of pupils in adulthood the teachers are not sure.

The results include the evaluation of the effectivity of each teaching method on the basis of experiments and interviews which were executed. Regarding the experiment, it was proven that there were only minimal differences in the level of entertainment between classes using classical teaching methods and those with activity teaching methods. The results of both tests demonstrate that the activity method does not need to be the preferred tool to achieve a better transfer of knowledge and skills, but it is
more efficient in the case of learning new terminology. It was surprising that the pupils who attended class achieved better results only in the first test. It is demonstrated that most financial knowledge is gained outside the school, from media or parents. In both tests the differences among pupils were minimal. It seems that the method used in the teaching of financial literacy has no important impact in this case.

Currently, there are a series of studies planned to evaluate the results of financial education in the Czech Republic. Financial literacy has been taught compulsorily for no more than two years, therefore there are not any available studies (of different methods) demonstrating the influence of financial education on the behaviour of adults. We can only hope that the sixth contribution to the prestigious PISA survey shows high potential of Czech pupils and predicts better orientation in the financial market, indebtedness prevention, and the ability to avoid the other negative factors in the next generation.

References


