

THE REPRESENTATIONS OF FINANCIAL EDUCATION AMONG ELEMENTARY TEACHERS IN ROMANIA: BETWEEN COGNITION AND CITIZENSHIP

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Abstract: *This paper presents a study conducted with 83 Romanian elementary school teachers about their representations of Financial Education (FE) and the importance of teaching it in school. The teachers responded to an online survey about their perceptions and their needs to teach Financial Literacy (FL). The preliminary results show that most of the teachers recognize the importance of learning FL. Their rationale for the importance of financial education in schools range from rational arguments, to citizenships arguments with sociocultural arguments in between.*

Key words: *financial education, financial literacy, mathematics.*

1. Introduction

Financial education (FE) in elementary school is increasing around the world. Many countries, such as Australia, Italia and Canada, implemented FE into their curriculum. It seems that incorporating FE in schools is generally accepted (Lusardi & Mitchell, 2014; Lusardi, Mitchell, & Curto, 2010). Romania also incorporated FE in the curriculum. Teaching FE aims, among others, increase the knowledge and skills among the population, which in turn can develop positive behaviours and attitudes towards personal finance (Alsemgeest, 2015). More specifically, as stated by the Organisation for Economic Co-operation and Development OECD (2016), being financially literate means making effective financial decisions for individual and for their community:

“Financial literacy is knowledge and understanding of financial concepts and risks, and the skills, motivation and confidence to apply such knowledge and

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understanding in order to make effective decisions across a range of financial contexts, to improve the financial well-being of individuals and society, and to enable participation in economic life." (OECD, 2016, p. 85).

Implementing FE into schools' curricula is one step, but it can't be done without supporting teachers to deliver it. Little is known about teachers' training to teach FE. It is important to understand what teachers think. Most elementary teachers do not have proper training with this regard. At the same time, with new curricula incorporating financial education, the question of whether teachers are convinced of its importance still deserves closer attention.

In this paper, we want to answer the following research questions:

- 1) What are the representations of financial education among elementary teachers in Romania?
- 2) What is the importance these teachers give to financial education in elementary school?

2. Financial Education in Romanian Elementary Schools

In the national curriculum for elementary school, Financial Education is embedded within mathematics (O.M. No. 3418/19.03.2013 and no. 5003 /02.12.2014), and the competencies to be developed are: Realization of some value exchanges using the standard and non-conventional representations in problem-games of the type revenue-expense; The use of certain standardized instruments and units of measurement in concrete situations including to validate certain transformations; Operations with standard measurement units, using transformations. The mathematical contents related to these competencies are: Monetary measurement units (leu and ban, euro and euro cent) and Equivalent currency exchanges in the same currency unit.

There is also an optional course on Financial Education (for students at the ages of 9 to 11 years old) which aims students to develop a better understanding of the role of money, credit and banks in the context of the market economy. According to the government (MEN, 2013), the goals of Financial Education are to "prepare students to acquire skills to manage money and to discuss about decisions which have financial consequences". The general competencies of such course refer to students' abilities to:

- Know and use certain specific language elements from the financial banking domain;
- Recognize certain specific elements of the bank phenomenon in different contexts;
- Utilize of certain currencies and banking techniques;
- Manifest interest with regards to saving and money management.

From the curriculum of the optional course, the financial education domain includes: - Money and life (the history of money: exchange, bartering; the Romanian national currency: Leu, the National Bank of Romania; credit institutions: banks, banking operations, the Romanian banking system; the currencies of other countries; reserve currencies: American dollar, Euro);

- The value of money (money is earned: labor market and trades; salary; entrepreneurship; ideas of business; profit; savings; needs and wants; economy; bank accounts; discounts; revenue; investment options and methods);
- Money usage (circulation of money: selling and buying; payment methods: cards, ATMs, PIN codes, the advantages of cards, types of cards); checks; borrowing types of loans.

3. A Theoretical Framework

Teaching students means creating learning environments for them. In this regard, the milieu (Piaget, 1967) created aims that students will learn a content with purposes. Savard (2015) developed a model that contains three distinct contexts: sociocultural, citizenship and mathematical. Studying a sociocultural object of phenomenon is the rationale to develop a cognitive understanding of that particular object or phenomenon. The cognitive understanding is developed in a mathematical context, where mathematics is used to model the object or the phenomenon to shed a different light on it. This modelization process bring the learners to study the implications of the results of the object or the phenomenon into a broader context: the citizenship context. Citizenship is defined here as each person as a member of a community of social practices participates in a critical and responsible way to the practice in question. Each member of a society participates in a democratic way to its evolution (Ten Dam & Volman, 2004). In this sense, teaching Financial Education aims also to develop cognitive understanding of sociocultural practices in order to engage all students in developing citizenship competencies. Along with this definition, we want to explore in this paper which nuances of FE teachers demonstrate when pressed to discuss their representations of the subject. We borrowed at Brun and Conne (1990) their definition of representation, which is an interface between someone's knowledge and a situation. In this case, the teachers' knowledge refers to the definition of FE teachers have, while the situation refers to the implementation of FE in Romanian elementary school (introduced by the curriculum in the past few years).

4. Method

In order to collect the data, we developed and post online a survey. The survey had eleven questions, organized into several themes. The first theme was about teachers' representations of FE; teaching practices when teaching FE; the second theme was about the importance teachers give to teach FE in elementary school; the third theme was about their teaching practices when teaching FE. Some questions were yes/no questions while the other questions were provided with a Likert scale. We also asked participants to justify or explain their answers within open-ended questions. On total, 83 Romanian teachers responded to the online survey.

We analyzed the data according to our theoretical framework. We categorized each answer, and we grouped the categories under our three major themes: Citizenship context, sociocultural context, and cognitive context. For each theme, we provided a percentage of the answers given by teachers as well as examples of responses that illustrate each category.

5. Results

As part of our research instrument, we elicited the elementary teachers on their representations of financial education. Upon answering the question “for you, what does financial education represent?”, three different themes containing a total of eight meanings emerged among the participants. The first theme, named citizenship context, comprised representations of financial education related to broader issues of economics and finance in society. Teachers who reported this answer (21% of respondents) often referred to the understanding of economic phenomena such as inflation, interest rates, economic system and policy. In addition to the understanding, teachers referred to the mobilization of such broad concepts. They mostly referred to economic concepts such as money, value, capital, economy and investment. Overall, we notice that the macro level citizenship theme comprises a representation of financial education that relies mostly on knowledge (the epistemological aspect).

The second theme, present at most participants (65%), refers to everyday life. Named social context, participants who reported this type of representation emphasized the skills necessary to put knowledge into practice (praxis aspect). Not only they emphasized our immediate actions regarding money, but also the lifelong implications and management as an ongoing dimension (which permeates everything as opposed to one specific action).

The third theme, cognitive context, showed the specificity of our research participants (elementary teachers who currently teach financial education in their classes). 21% of participants provided responses that fall into this theme. The education component of financial education is highlighted in this theme through responses that indicate how engaging and important the topic is for students, and how it fosters inclusive education (which aims to provide equitable access to education). Table 1 shows examples of responses for each theme and meaning.

Table 1

Definitions of financial education by Romanian elementary teachers

Question 1		
Theme % of teachers	Categories	Example of quote
Citizenship context	Manage economic concepts	<i>Financial education is important to familiarize children with the notions of "money", "capital", "value", "investment", "economy", etc. and to develop them.</i>

Table 1

Definitions of financial education by Romanian elementary teachers

Question 1		
21%	Understand economic phenomena	<i>Useful and necessary information for understanding the economic reality.</i>
Sociocultural context 65%	For the life	<i>Financial education comes to change the mentality of the new generation. To lay the foundations for a new, well-thought-out lifestyle that does not encourage consumption but saving.</i>
	Our actions	<i>The ability to organize financially, to anticipate the financial risks we face as a result of our own actions.</i>
	Manage and manipulate money	<i>Everything about money: what's the money, their history, the usefulness, how you get money, how you save them, borrow you, what credit / debit, interest, warranty and mortgage contracts etc.</i>
Cognitive context 26%	Engage students	<i>Financial education is an opportunity for pupils, they will be engaged in everyday reality, knowledge of money, how to obtain them, the appreciation of each penny, ways of saving.</i>
	Inclusive education	<i>A branch of inclusive education.</i>
	Important subject	<i>Financial education is a major objective.</i>

In addition to their representations, teachers were also prompted to discuss the importance of financial education for elementary students. The vast majority (97.5%) responded positively to the question, and it seems that teachers perceive FE as something important for young learners both in terms of the knowing the world (cognitive context) and making decisions to act on it (social context). In terms of the social context (theme 1), all responses referred to everyday financial transactions and the behavior associated to them (financial decision making, best practices, managing money, having appropriate attitudes towards money). In terms of the cognitive context (theme 2), the participants showed an awareness regarding the students' future (their personality and their future lives) and their knowledge of the world and financial system. Table 2 shows some examples of responses regarding the teachers' perceptions of the importance of financial education.

Table 2

The importance of financial education for elementary students
“Do you think that financial education of pupils in primary education is important?
Why?”⁴

Question 2		
Theme	Categories	Example of quote
Sociocultural context 43,78 %	Better financial practices	<i>Even if it is small, a child in primary classes can learn how to save and set aside for later, how to raise a sum (from parents, grandparents, relatives, etc.) to buy their favorite toy.</i>
	Decision making	<i>Children are constantly asking for money, buying something or wanting to buy things without understanding the value of money, the importance and usefulness of the goods purchased.</i>
	Financial management	<i>For a good financial management throughout your life.</i>
	Give more value to money	<i>Many children do not know the effort made by parents to earn money, they do not recognize the correct value of money.</i>
	Become more responsible	<i>It would help them become more responsible.</i>
Cognitive context 32,82 %	Develop personality	<i>It is important for shaping their personality.</i>
	For the future	<i>It is necessary for such education for the future and the younger the younger the new notions are easier assimilated.</i>
	Know reality around us	<i>Students will know the reality better, understand what is happening around them.</i>
	Financial system (simple)	<i>Children are actually anchored, they see their parents struggling to pay for expenses, savings, rates. It is necessary to understand simple financial mechanisms.</i>

Since most of the participants see financial education as an important topic for students, we highlight their beliefs about this issue in school. While financial education can be implemented on a variety of ways, the teachers who participated in this study come from a background in which they teach the topic as an optional course. Therefore,

⁴ In this question, participants had the option of answering with the choice of yes or no, therefore not all participants provided comments regarding their reasons.

we asked them about the importance of teaching FE in schools (as opposed to after-school programs or at home, for instance). On the *citizenship context*, participants highlighted the importance of schools to identify entrepreneurship skills and other traits among students. On the *sociocultural level*, participants seem to perceive the school as the ideal location for financial education for it develops behavior, provides the right approach to teaching and learning this issue, both in terms of knowledge and psychological development. Finally, on the *cognitive level*, participants noticed the importance as being an opportunity to connect the school context and real life, and to fulfill the purpose of education (child's development and the learning of new content). Table 3 presents a synthesis of these results.

Table 3

*The importance of financial education **in school***

"Why do you think it would be important to achieve financial education in school?"

Theme	Categories	Example of quote
Citizenship context 24,67%	Know economic phenomena	<i>It would help them understand the economic phenomena they are encountering.</i>
	To better manage finance	<i>The future citizen will have notions of their earlier value, and will use the money better,</i>
	Entrepreneurship skills	<i>Identifying entrepreneurial skills, for example.</i>
Sociocultural context 41,55%	Better learn earlier	<i>Behavioral habits have been formed since childhood, so students will do what they have learned during their childhood in adult life.</i>
	Better didactics improve understanding	<i>The teaching pedagogical tactic can facilitate the understanding of the notions.</i>
	Better didactical context for psychological development	<i>Teachers have methods correlated with the psychological development of children, they know didactic games, methods and procedures to encourage children to cooperate, discover or ask.</i>
Cognitive context 33,76%	Real life connection	<i>It is a link between school and life.</i>
	Child's development	<i>For a child's complete child development</i>
	New knowledge	<i>For students to enrich their knowledge in this area as well.</i>

6. Discussion

The representations of financial education expressed by the teachers can be associated to the importance they give to teach FE in school, and it's importance for elementary school students. For instance, regarding the citizenship context, definitions can be associated to external factors that highlight the importance of FE in school: economy, management and entrepreneurship are the reasons why schools should play an important role in order to have students understand economic phenomena and manage economic concepts.

The definitions under the social context can be associated to the school level (local) that highlight the importance of FE in school. At this level, teaching FE as an immediate and long-term impact on students' knowledge and praxis. Therefore, these levels stress the importance for students on epistemology (knowledge) and ethics (praxis).

The definitions under the cognitive context can be associated to the individual level (internal to the student) that highlight the importance of FE in school. Thus, FE is engaging for students and allow to make real life connections. Table 4 presents the teachers' representations accordingly to the context we associated them:

Table 4

The teachers' representations and their context

	1. Representations of FE	2. Importance of FE for elementary students	3. Importance of FE in school
Citizenship context	Manage economic concepts Understand economic phenomena	---	Know economic phenomena To better manage finance Entrepreneurship skills
Socio-cultural context	For the life Our actions Manage and manipulate money	Better financial practices Decision making Financial management Give more value to money Become more responsible	Better learn earlier Better didactics improve understanding Better didactical context for psychological development
Cognitive context	Engage students Inclusive education Important subject	Develop personality For the future Know reality around us Financial system (simple)	Real life connection Child's development New knowledge

In fact, the representations of the teachers can also be seen as cognitive, sociocultural and citizen arguments to justify the teaching of FE. Those arguments are not isolated,

but rather in association. Thus, the cognitive arguments could be a strong rationale to justify sociocultural arguments, and the latter could justify the citizenship arguments:

- Engage students to understand economic phenomena.
- Knowledge learned earlier to better manage finance.

It is worthwhile to note that under the importance to teach FE for elementary students, the teachers' representations do not include citizens arguments. Thus, the cognitive arguments justify only the sociocultural ones:

- To develop individuals to become more responsible.
- To know reality to have better financial practices.

The Romanian teachers recognize the importance to teach FE in school, but their vision for elementary students is limited to the sociocultural context. In a sense, the lack of vision toward citizenship for students at that level might indicate a need to further investigate what children do and why in regard to managing money and resources.

7. Concluding Remarks

This paper presented the results of a survey answered by 83 Romanian elementary school teachers. The teachers' representations about FE show the importance of it, but the importance of teaching FE for elementary school students cannot aim to develop citizenship.

We argue that, based on the results of this study, different representations among our participants might turn into different teaching styles and practices. To better foster financial education, more research should be conducted to identify the practices associated with each teacher's representation of FE. By doing so, researchers and teacher educators will be able to provide the appropriate support and respond to emerging needs among elementary teachers for financial education training.

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Source: Bulletin of the Transilvania University of Braşov, Series VII: Social Sciences and Law
Bulletin of the Transilvania University of Braşov, Series VII: Social Sciences and Law

Location: Romania

Author(s): A. Savard, Alexandre Cavalcante, Daniela Căprioară

Title: The Representations of Financial Education among Elementary Teachers in Romania: Between Cognition and Citizenship
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Issue: 1/2020

Citation style: A. Savard, Alexandre Cavalcante, Daniela Căprioară. "The Representations of Financial Education among Elementary Teachers in Romania: Between Cognition and Citizenship". Bulletin of the Transilvania University of Braşov, Series VII: Social Sciences and Law 1:47-56.
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