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Solutions for Higher Competence in Financial Literacy

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Abstract. Financial literacy now appears to be a key component of a successful national economy and successful personal finance and budgeting. Financial education, financial consumer protection and financial inclusion are the goal of top country policies. For this reason, it is necessary to assess the levels of financial literacy in each country. There are several solutions for education in this field. The aim of the article is to state selected solutions that will support financial literacy. Paper is starting point to this issue for future analysis. Digital dementia is one of the issues solved in the article. Advanced technologies and their use are some presented solutions as are web portals, learning management systems, PC and Internet games, social networks, blogs or other possibilities. Three web portals that can be used for getting higher competencies in financial literacy will be presented at the end of the article. Primary and secondary sources were used in the processing of the article.

Keywords: Financial literacy, web portals, education, digital dementia, competencies

1 Introduction

Financial literacy, its importance, measuring issues, implementation of financial education programms and related topics are frequently discussed in academic and public environment. High level of financial literacy makes a large contribution to the financial well-being of individuals, because financially literate individuals are more likely to plan for retirement Almenberg & Save-Soderbergh, [1] more likely to participate in financial markets and perform better on their portfolio choice [2] and more likely to accumulate higher amounts of wealth (Lusardi & Mitchell, [3]). In turn „lack of financial literacy was one of the factors contributing to ill-informed financial decisions and that these decisions could, in turn, have tremendous negative spillover" [4]. Ciemleja, Lace, Titko, [5], Kantnerová [6] shows the level of financial literacy in different countries and find, if there is any, some methods, differences or connecting matters, what can be used for the improvement of the situation, if needed. [7]

Digital media are omnipresent in our daily lives. This popularity is giving rise to fears about the possible negative consequences of computer and internet use. [8]

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2 The literature review

PISA [9], p. 36 defines the financial literacy as: „Financial literacy is knowledge and understanding of financial concepts and risks, and the skills, motivation and confidence to apply such knowledge and 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."

Understanding financial literacy among young people is essential for developing effective financial education programmes. [10] Financial literacy (FL), its importance, measuring issues, implementation of financial education programms and related topics are frequently discussed in academic and public environment. High level of financial literacy makes a large contribution to the financial well-being of individuals, because financially literate individuals are more likely to plan for retirement [11], more likely to participate in financial markets and perform better on their portfolio choice [12] and more likely to accumulate higher amounts of wealth [13], [14], [15], [16].

Marcolin and Abraham [17] identified the need for research focused specifically on measurement of financial literacy. Typically, financial literacy and/or financial knowledge indicators are used as inputs to model the need for financial education and explain variation in financial outcomes such as savings, investing and debt behavior. Far fewer studies specifically emphasize measurement of financial literacy as an objective. Huston [18] overview of the importance and measurement of financial literacy is presented to highlight current limitations and assist researchers in establishing standardized, commonly accepted, financial literacy tools.

Gajewski [19] presents lessons learned from almost 25 sears long experiences with different forms of E-learning. All experiences are definitely positive, but during the research, manpasses and traps have been recognized and observed. Widely used multimedia materials do not motivate poor students to learn. Instead of learning they prefer to watch the materials in a passive way. Mobile learning, in which all materials are available for smartphones, has increased this attitude towards learning. All quizzes and tests cannot be replaced by a real exam. Knowledge of the answers on hundreds of questions is not equal to the real knowledge of a certain field. Flipped classroom paradigm for learning at home was not accepted by students. Moreover, E-education creates chances for c-cheating. All these pitfalls and traps lead to the conclusion that F-education is not a straightforward remedy for all current education problems.

3 The goal of article and methodology

The article is based on primary and secondary sources. Secondary sources comprise information about financial literacy and education in the Czech Republic and abroad, professional literature, information collected from professional press, discussions or previous participations in professional seminars and conferences relating to the chosen subject. Primary sources are based on the information gained from individual web portal. Then it was necessary to select, classify and up-date accessible relevant

information from the numerous published materials that would provide the basic knowledge of the selected topic. [2], [7], [16], [20].

The goal of the article is to focus on the financial literacy and the negative effects of education using only digital media. The aim of the paper is to state selected teaching materials that can be used to getting higher competencies in financial literacy in the
Czech Republic. Solutions are managed in more ways and also in the electronic form.

4 Digital dementia

German psychiatrist Spitzer [21], in his book “Digital Dementia”, demonstrates through a series of surveys that digital learning technology not only does not help but is even harmful. In simple terms, the basic thesis can be expressed as follows: By making computers, the Internet or GPS navigation easier for us, they take us away from "brain training." When we are certain that the information is stored somewhere and we can find it anytime, nothing When navigating in a car tells us where to go, we do not have to concentrate on the space in which we move, ourselves - without navigation - we are gradually losing our spatial orientation capability, and finally, when we become accustomed to the possibility to search for information and at the same time watch emails, chat, listen to music, etc., we lose our ability to concentrate, the ability to work intensively.

4.1 The secondary effects of digital media

- Because of working with digital media we use the most logical part of the head. Apart from logic, we neglect linguistic, verbal, musical, physical, visual, spatial, intrapersonal and interpersonal intelligence (emotional intelligence and empathy).
- The perception of the environment and of itself is largely suppressed by watching the display, as the glowing displays naturally attract attention without having to consciously take it. It can be observed that people working or playing on computers often ignore the needs of their body (hunger, thirst, need for movement, etc.) and do not perceive the outside world.
- Perception of time is difficult, for the same reason, especially if you are doing something to get enough of it.
- Definition of function and location. Considering the computer as a tool, it is difficult to define its purpose, as it is multipurpose. People are naturally used to adjusting their place and environment for their activity, which helps them keep their attention and build up work habits. If you use one thing in bed, chairs, office, transport, for fun and for many kinds of work, it really costs a lot of energy to keep your goals in mind and build some work habits at all.
- Multitasking. People commonly perform a variety of activities or work in multiple applications at the same time. At the same time, they listen to music, play the game, watch chat, download files, read emails every 5 minutes, write a task or

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learn? The negative effect of switching attention has been confirmed by many studies.
- Physiological stress - work is particularly stressed on the eyes, spine and wrist (RMS syndrome), lack of movement.
- A test of will and purposefulness - the number of available applications, interactive and communication means, infinite amounts of information, videos and pictures, music, colorful advertisements and games prepared by psychologist teams, to engage as forever as possible, you do not see what you should do or what you want to do.
- Procrastination is a phenomenon today.
- There are risks of dependence that are known and demonstrable. [22]

5 Solutions for improving financial competencies

5.1 Financial literacy standard in the Czech Republic

The Ministry of Finance published the revised Financial Literacy Standard, which sets the target level of financial literacy for elementary and secondary school pupils on 20 July 2017. Compared to the financial literacy standards of 2007, these topics have been strengthened: cashless payments, protection of personal data, critical assessment of the supply of services and goods, budgeting and comparison of assets and liabilities, remuneration, financial product comparison, short and long term planning, age security, the emergence and risk of borrowings, the consequences of default and debt and over-indebtedness.

The revised standard of financial literacy will be implemented in the Framework Education Programs at their next revision. The National Institute of Education encourages primary and secondary schools to compare the revised standard of financial literacy with their school curriculum and, if necessary, their school education program in the field of financial education during a transitional period (ie until the revised standard of financial literacy is part of the framework educational programs) edited or completed. The current adaptation of school education programs is not an obligation at present, but only an option. In the case of adjusting the school education program according to the revised standard of financial literacy, this adjustment will also be in line with the current Framework Educational Program.

5.2 Possibilities for improving financial literacy

There are several possibilities, how to improve financial literacy and competences in this field. They are:

- Subject “Financial literacy” or more subjects focused on the financial competencies and discussion at school
- Project days at school

- Web portals
- PC and Internet games
- Social networks
- Blogs
- Desktop games
- Books
- Discussion with parents

It depends on the age of children, students or people that are in the productive age or pensioner what information do they need. Pupils will need basic information and knowledge in this field. Students will need deeper competencies in the financial world and citizens in the productive age or pensioners also.

5.3 Web portal "Why Educate in Financial Literacy?"

In 2014, the Ministry of Finance of the Czech Republic launched a pilot version of the PSFV portal entitled "Why Financial Education?" which can be found at www.psfv.cz. In particular, these sites:

- provide information on the functioning and risks in the world of finance, □provide guidance and guidance in various areas of finance,
- help solve problems (over-indebtedness or financial market participants)
- highlight interesting websites with financial games, calculators and projects
- share PSFV members' information

At first glance, the site is uninteresting, but after a done analysis it is really clear and fairly well developed. This is a glossary of the notions of the world of finance that every financially literate person should know and control. The headings are broken down into the nine basic training groups:

Each section contains not only the basic concepts, but also other areas that undoubtedly belong to the given problem. Everything is well explained and the issue is supplemented with tutorials, calculators, links or a form.

In the other columns there are various tips and guides (such as How to Retire or Insurance, Information on Treaties, Payment Cards, etc.), Information for Professionals (where they are trained, Legislation, Financial literacy level measurement, etc.). There are also presented contacts in case of problems and need to seek help. Everything is accompanied by important and clear news and an overview of financial education projects.

The portal is an excellent electronic textbook not only for teachers, but also for children and parents who could help orient themselves in the complicated world of finance. All necessary and basic knowledge are provided, which is supplemented by up-to-date information, which is very advantageous because all information are presented in one web portal and it is not only a theoretical portal, see fig. 1 – description of the financial market. Portal contains next parts: News, Family and Personal finance, Description of the financial market, Consumer protection, Loans,

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Money and accounts, Investment, Insurance, Pensions, Solving of conflicts, Tips & Guides, For professionals, Interesting links, Contacts, Dictionary of terms, They will help you and Test yourself.

Fig. 1. Web portal "Why Educate in Financial Literacy?"

5.4 Web portal “Money on the run”

The Czech National Bank has launched and operates web portal focused on financial literacy. The site is designed for young people that are aged 18-35 and seeks to educate them in a comprehensible form. The pages are divided into 3 sections:

- budgeting
- financial services
- life events

The site also includes quizzes, a glossary of terms, ten Commandments about money. The portal can be used in school practice, but it is recommended especially for secondary school pupils than for elementary pupils. (See fig. 2).

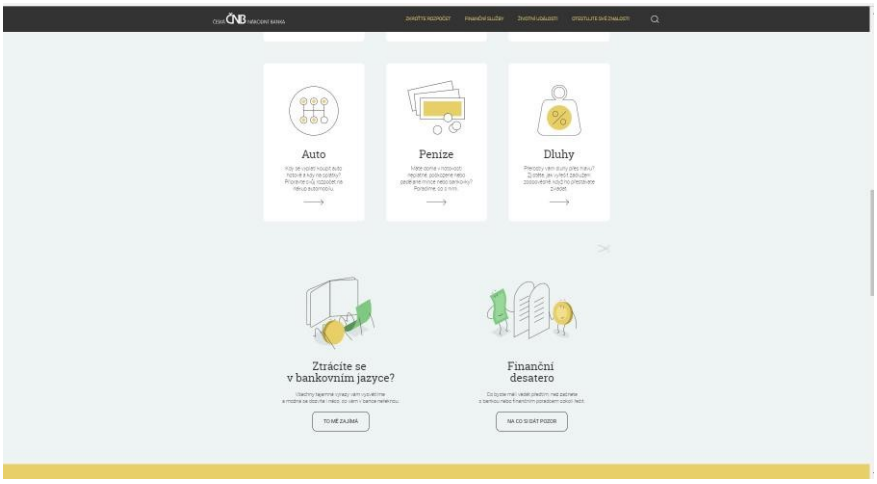

Fig. 2. Money on the run [24]

5.5 Web portal "Life without debts"

Life without debts [25] is the SEKO site, which implements the Fund for Further Education. It is an animated series on financial literacy topics, which deals with the following 10 advices:

- The rich and the poor, everyone must calculate
- We save a lot of money when we save on little things
- Debt trap
- Debit or credit, that's a question!
- Do you have property? We'll borrow you!
- Just let him see that we have it! □Civic Counseling - Do not be alone on it □They borrow without rules ...
- RPSN and contracts - More heads know more.
- About bread and water

Although the materials are primarily intended for job seekers, animated videos can be also used in school lessons. You can find all the spots on the YouTube Channel (see fig. 3) [26].

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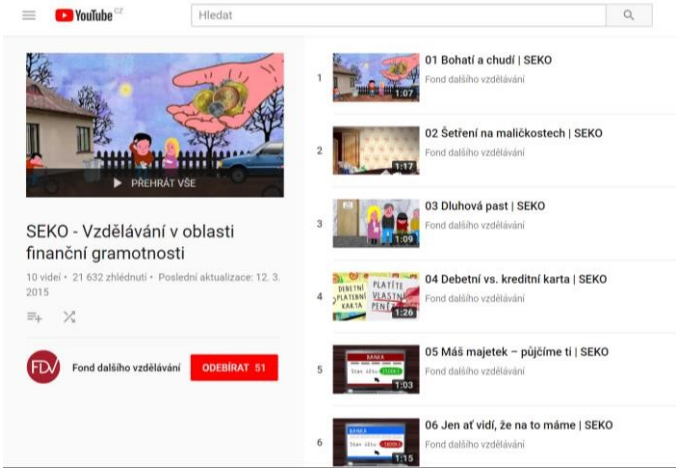

Fig. 3 Life without debts [26]

6 Conclusion and discussion

Appel, Schreiner [23] reviews the current empirical knowledge regarding the effects of computer and Internet use. The meta-analyses yield no evidence for a supposedly maladaptive influence of Internet use on social interactions, political and civic engagement, or loneliness. The relationships between Internet use and well-being or depression are small, but significant, as is the relationship between the use of digital media and obesity. On average, learning with the computer and Internet, including educational games, can have positive effects. However, there is substantial evidence for negative effects of violence in computer games on aggressive thoughts, feelings, and behavior.

Financial literacy, digital dementia and solutions for gaining higher competences in financial literacy were solved in the article. Main part of the article was focused on the specification of several solutions how to improve financial literacy. Last part is devoted to chosen advanced technology in education process that may be use for hybrid learning. It contains short description and introduction of three Web portal focused on the financial literacy in the Czech Republic, "How to educate in financial literacy", “Money on the run” and “Life without debts”.

The current adaptation of school education programs is not an obligation at present, but only an option. The behavior of parents, neighborhoods and other components of the economy is another element that affects financial habits. It is recommended to speak and discuss about those issues and to ask in all times when we are not sure with our steps.

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